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# anthro•notes

a newsletter for teachers

1995

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vol. 1 no. 1

spring 1979

DO YOU TEACH ANTHROPOLOGY in the Washington metropolitan area or use anthropological concepts and materials in your teaching? Would you like to? Are you interested in new ideas and/or materials? This newsletter's purpose is to reach the community of teachers interested in teaching anthropology, whether in a fifth grade or a college level course. ANTHRO•NOTES will present information about upcoming meetings and events; reviews of new books, films, and curricula for teaching anthropology; articles and interviews; and descriptions of interesting classroom activities. We welcome your suggestions and your questions. You may be seeking a particular book or a stimulating technique that others reading this newsletter can suggest.

ANTHRO•NOTES is part of an NSF-funded Anthropology for Teachers Program conducted by George Washington University, in co-operation with the Smithsonian Institution's Department of Anthropology. This program, involving monthly seminars with area anthropologists, has three components: 1) a two-semester graduate credit course, 2) a newly formed resource center for teaching anthropology, and 3) this newsletter.

The forty teachers of science, social studies, and anthropology participating in this year's program from the District of Columbia and Montgomery County give it high ratings. The program will continue next year offering an eight credit, tuition-free graduate course, with book and travel stipends. The course consists of eight monthly topics relevant to secondary school teachers. Three weekly meetings each month are held at a school convenient to the teachers. The fourth meeting each month is held at the National Museum of Natural History or at The George Washington University. Teachers meet with anthropologists to learn about their research. Some of the anthropologists participating this year have been Dr. J. Lawrence Angel, Dr. Douglas Ubelaker, Dr. Colin Turnbull, Dr. Eliot Liebow, Dr. Geza Teleki, Dr. Robert Humphrey, Dr. Alison S. Brooks, and Dr. Catherine Wagner. N.S.F. has funded the program for 1979-1980 when it will be expanded to include Virginia teachers.

In organizing this program and talking with teachers, we discovered their desire to create a network of teachers interested in teaching anthropology. This newsletter, which will be published three times a year, is one way to help foster this network.

If you wish your name to be added to our mailing list or wish to write an article for ANTHRO•NOTES, write or call Ruth O. Selig or Ann Kaupp, Department of Anthropology, National Museum of Natural History, Washington, D.C. 20560, 381-5961/5964.



### ANTHROPOLOGY FOR TEACHERS PROGRAM - STAFF

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### RECEPTION FOR THE TEACHERS' ANTHROPOLOGY RESOURCE CENTER

You are cordially invited to a reception for the opening of the Teachers' Anthropology Resource Center on May 3, 1979 at 7:15. It will be held in the Naturalist Center located in the Smithsonian's National Museum of Natural History. The speakers will be Colin Turnbull, an anthropologist who lived with the Mbuti Pygmies and the Ik and who now teaches anthropology through drama at The George Washington University, and Beatrice Kleppner, a high school teacher who has taught anthropology for 15 years in Boston. You will be able to explore the Resource Center. Refreshments will be served. R.S.V.P. on the enclosed card.

### RESOURCE CENTER OPENS

A teachers' resource center of anthropological materials developed by Catherine Burt, George Washington Museum Education intern, is now open, located in the Naturalist Center of the National Museum of Natural History, room C 219. Presently the collection includes multi-media curriculum kits, educational resource catalogs, bibliographies, and guides to resources in the Washington area. Most of these non-circulating materials are designed for junior high and high school teachers of anthropology, geography, history, or biology, though some may interest community college and college teachers. The Naturalist Center's anthropology section also contains other materials of interest to teachers and students, such as reference books, human skeletal materials with self teaching guides, Paleo-Indian stone tools, an Eastern archeological collection with written guides, and artifacts illustrating different kinds of conservation problems. The Naturalist Center is open to individuals Wednesday through Saturday from 10:30 a.m. to 4 p.m. and on Sunday from noon to 5 p.m.

Patterns of Human History, the four unit high school curriculum developed by The Anthropology Curriculum Study Project of the American Anthropological Association, can be found in this new resource center. (The units are: Studying Societies, Origins of Humanness, The Emergence of Complex Societies, Modernization and Traditional Societies.) Anthropologists and teachers worked together for several years developing this multi-media program before its publication by Macmillan in 1971. Teaching plans accompanying each unit contain procedures and anthropological/historical background essential for directing, integrating, and interpreting student materials and activities. Student readings, on the other hand, are unstructured, allowing for original analysis and open-ended inquiry. Patterns of Human History offers a well organized and consistently provocative



curriculum readily available for grades nine through twelve.



## ANTHROPOLOGY FOR TEACHERS 1979-1980

For applications or further information about the NSF funded "Anthropology for Teachers Program" for 1979-1980, write: Dr. Alison Brooks, Department of Anthropology, Museum of Natural History, Rm 321, Smithsonian Institution, Washington, D.C. 20650, or call JoAnne Lanouette 547-9096. Information also may be obtained from the Anthropology Department, The George Washington University 20052, 676-6075.

## UPCOMING EVENTS

April 17: "Upcoming Fieldwork in the Shenandoah Valley - Summer 1979" by The Catholic University and the Thunderbird Research Center Staff. This seminar presentation will meet in the archeological lab at 8:30 p.m. For further information call 635-5080.

April 19: "The Archeology of the Ocean" by Mendel Peterson. A specialist in underwater archeology, Mr. Peterson will focus on the shipwrecked Spanish treasure galleons of the colonial period. For ticket information call the Smithsonian Institution Resident Associate Program Office 381-5157.

April 19 - June 7: "The Sacred World of the Aztecs" by Richard Townsend. A Lecture Series sponsored by the S.I. Resident Associate Program. For ticket information call 381-5157.

April 25 - May 23: Archeology Fieldwork Lecture Series by Robert Evans. The program includes a field trip digging at Thunderbird Archeological Park near Front Royal, Virginia. Sponsored by the S.I. Resident Associate Program. For ticket information

call 381-5157.

May 14 - June 29: "Anthropology of Education" course will be offered by the Anthropology Department of American University, Mondays & Wednesdays, 5:30-8:00 p.m. For information call the Department of Anthropology, 686-2182.

May 15: "Anthropology of Education Systems" by David Hakken and Michael Ratner. Anthropological Society of Washington (ASW) meeting at 8:15 p.m. in the Ecology Theater of the National Museum of Natural History.

May 18: "A Potpourri of Teaching Strategies in Museums." Meeting of the Museum Education Roundtable, open to all teachers and museum educators. For further information, call 381-7324.

May 31: "Public Archeology in Virginia" by Dr. William Kelso, Commissioner of Archeology, State of Virginia. Alexandria Archaeology Research Center 1979 Seminar Series. For reservations call 750-6200.





## ANTHROPOLOGY AND EDUCATION: BASIC RESOURCES

Anthropology and Education is fast becoming a subfield of anthropology. Two major goals of this subfield may be of interest to our readers: 1) the 'applied' goal of encouraging the teaching of anthropology throughout the educational system, and 2) the research interest in cross-cultural ethnography of educational systems, formal and informal.

Five basic resources can introduce you to the wealth of materials pertinent to the teaching of anthropology and to the research in cross-cultural education around the globe.

The Council on Anthropology and Education (CAE) is a professional association of anthropologists and educational researchers concerned with the application of anthropology to research and development in education. The Council was organized in 1968 and its newsletter has now become a quarterly issued to all members of CAE (dues \$10.00/year). Inquiries regarding membership should be addressed to the Council on Anthropology and Education, 1703 New Hampshire Avenue, N.W., Washington, D.C. 20009. The quarterly has articles concerned with various educational topics including the teaching of anthropology at the pre-college level.

Pre-Collegiate Anthropology: Trends and Materials by Thomas L. Dynneson (University of Georgia, 1975) is available for \$3.00 (pre-paid, no charge for postage and handling) by writing to the Department of Social Science Education, Dudley Hall 200, University of Georgia, Athens, Georgia 29602. Dynneson's book is a basic resource for teachers, in that it identifies materials, practices, and research related specifically to the teaching of anthropology. Chapters one and two trace the growth of anthropology in school curricula since WW II, and give a brief

summary of the field and reasons for its inclusion in school curricula. Chapters 3-6 describe a selection of major curriculum programs and materials including games, simulations, and audio-visual material. The appendix of this very useful book includes a selected, annotated bibliography of resources for teaching pre-collegiate anthropology.

The Study and Teaching of Anthropology: An Annotated Bibliography by Susan Dwyer-Schick (University of Georgia, 1976) is also available from the Department of Social Science Education at the University of Georgia (\$2.00). This bibliography, like Dynneson's, focuses on anthropology in education rather than the anthropology of education. There are approximately 600 entries, covering a century of the study and teaching of anthropology at the college and pre-college levels. These are designed to be useful to the anthropologist, educator, and teacher, as well as the researcher interested in the history of anthropology. The bibliography is arranged in chronological order, and then alphabetically by author, with an additional index by author. The chronological treatment allows you to trace the fascinating evolution of anthropology's intersection with educational developments in this country, as well as allowing you to glean some of the most relevant articles on recent curriculum developments for teaching pre-college anthropology.

Karl Heider's Films for Anthropological Teaching, 6th edition, 1977 is available for \$5.00 from the American Anthropological Association, 1703 New Hampshire Ave., N.W. Washington, D.C. 20009. Heider's book is a basic resource for all teachers of anthropology, as it lists and annotates films that have been (or are potentially) useful for teaching anthropology. It contains 780 titles, catagorizes them by topic, arranges them alphabetically, and finally provides information on obtaining them through rental or purchase.





Anthropology and Education: An Annotated Bibliographic Guide by Jacquetta H. Burnett (New Haven: H.R.A.F., 1975) is available from HRAF, P.O. Box 2015, Yale Station, New Haven, Connecticut 06520 (cloth \$8.00; paper \$5.00 - prepaid, no postage and handling). This bibliography concentrates on the anthropo-

logical research about formal and informal education. Burnett's introduction explaining the criteria for inclusion in her bibliography is a fascinating attempt at definition of an emerging field, as she carves out its domain from overlap with the fields of psychological anthropology, linguistics, and comparative education.



### SUMMER OPPORTUNITIES FOR TEACHERS AND STUDENTS

Alexandria Archaeology Research Center is devoted to the conservation and the interpretation of historic sites unearthed through its archaeology program. The Departments of Anthropology of the following schools will be offering archaeology field school programs this summer in co-operation with the Alexandria Archaeology Research Center: University of Maryland, Howard University, and Northern Virginia Community College. The AARC staff usually accepts volunteers, though this summer field school participants may fill their needs. For further information call 750-6200.

American University is offering a five-week archeology field school in cultural resource management at Accokeek, Maryland during June. High school students are welcome to apply. For information call the Anthropology Department 686-2182.

Catholic University is in its eighth season conducting an archeology field school at Thunderbird Archeological Park, a Paleo-Indian complex near Front Royal, Virginia. Two field schools will operate, one for college students, the other for high school students. For information concerning both field schools contact: Dr. William Gardner, Department of

Anthropology, Catholic University, Washington, D.C. 20064.

(Graduate students from Catholic University are available to visit high schools and present slide talks on the Thunderbird complex.)

The Pamunkey Project, a 10 week field school in living archeology, sponsored by Catholic University and the Pamunkey Indian Nation, "centers around the scientific study of settlement patterning in the late Woodland Powhatan Confederacy." The project entails the construction of a full-scale pre-Columbian Powhatan Indian village of several longhouses, using primitive tools and technologies. To learn more about this program and positions available write: Erret Callahan, Pamunkey Research Center, Rt. 1, Box 217-22, Pamunkey Indian Reservation, King William, Virginia 23086 (840-843-3648).

George Washington University Archeology Field School is located at the Abell's Wharf site in St. Mary's County, Maryland where cultural occupations extend from the Archaic period (ca. 7000 B.C.) through the early colonial era. This eight-week field school is held from June 11 to August 3 (deadline for applications - May 15). Qualified senior high school students will be accepted. For information, contact the Department of Anthropology, The George Washington

University, Washington, D.C. 20052  
(676-6075).

Field Methods in Primatology will be taught by Geza Teleki from June 11-27 at a site in West Virginia; and a Meso-American field school in Archeology and History will be run in June - July by Robert L. Humphrey and Bernard Mergan. For information call the Department of Anthropology, The George Washington University 676-6075.

Fairfax County Public Schools is sponsoring a six-week historic archeology summer field school program for high school students. The field school will operate from June 26 to August 7; the deadline for application is May 4. Non-residents of Fairfax County may apply. For information write: Mr. James Lunsford, 6131 Wilston Drive, Falls Church, Virginia 22044 or call 536-2030.

The Smithsonian Institution - The Office of Elementary and Secondary Education offers free summer workshops for teachers, including workshops on techniques for teaching in the museum and in the classroom as well as two writing workshops involving various museums. For information call Thomas Lowderbaugh 381-6471.

Laura McKie, education specialist in the Smithsonian's Office of Education, has volunteered her services this summer to help individual teachers develop museum-based curricula in anthropology. Interested teachers may call Ms. McKie at 681-5304.

The Smithsonian's Office of Education will need high school students (ages 16 or over) to give Highlight Tours of the museum for walk-in visitors. The summer program will run from June 25 to August 17, including one week of training. For an application call 381-6212 or write to Ms. Rebecca Mead, Office of Education, Room 212, Natural History Museum, Smithsonian Institution, Washington, D.C. 20650.

American Anthropological Association has available a listing of summer opportunities in all branches of anthropology. To obtain this listing send \$2.00 to AAA Summer Field School List, 1703 New Hampshire Avenue, N.W., Washington, D.C. 20009.

In FUTURE ISSUES of ANTHRO·NOTES, we hope to have:

- an exchange column for our readers, who can request and offer ideas and information regarding pre-collegiate anthropology,
- interviews with area anthropologists and teachers,
- reviews of recent books, films and resource materials for classroom teaching,
- ideas for incorporating anthropology into various curricula, and
- results of a survey of anthropology teaching in local secondary schools.

Editors: JoAnne Lanouette, Ruth O. Selig, Ann Kaupp  
Designer: Mary Epremian  
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# anthro•notes

a newsletter for teachers

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## TALKING WITH TEACHERS

How do you squeeze anthropology into an already crowded curriculum? How can it mesh with history, biology, or geography? What seems to capture students' interests? In the interviews below various teachers from last year's Anthropology for Teachers Program answer these questions.

Barbara Cianelli teaches Ancient and Medieval History to 9th graders at Alice Deal Junior High School in Washington, D.C. She starts off the year with a unit on Early Humans. "It's a good way to start since it's a whole new world for students. They observe primates at the zoo by looking at communication and family structure. I also take them to the National Geographic's Explorers Hall to the new exhibit on Visiting Prehistoric People. The caves are lifesize and the exhibits are good for beginning 9th graders."

When teaching Economics to 11th and 12th graders at Richard Montgomery High School, John Day has developed a unit on cross-cultural views of money. "I start off with the Bushmen filmstrip by Richard Lee in Patterns in Human History. We look at the Bushmen at the beginning of the course to show the universality of economic concepts such as scarcity, means of production, and distribution. Then the students find it very interesting to look at cigarette "money" in a P.O.W. camp and at the Papuans' use of money."

Sister Barbara Gress teaches 9th and 10th graders at St. Cecilia's High School in Washington, D.C. In World Geography, "I organize the course so that we look at the earth first as if from a spaceship, then from an airplane, and then from the ground. In the airplane view, I bring in anthropology with a discussion of migration routes, such as the peopling of the Americas across the Bering Strait." In General Science, she relies on the National Museum of Natural History, especially the Ice Age Mammals and Emergence of Man Hall. "I have also used the Monkeys, Apes, and Humans Program (see p.5), which is excellent and the students like it very much."

Mary Thompson teaches 10th grade Biology at Perry High School in Montgomery County. "I bring in anthropology in genetics and in human evolution. I have recently visited the new Dynamics of Evolution Hall at the National Museum of Natural History and it is wonderful. They have so many examples that are talked about in the students' textbooks."

Richard Abell teaches a one semester course in Cultural Anthropology at Walt Whitman High School. He decided not to offer a watered-down survey course and instead selected five units. (The Concept of Culture; Human Life Cycle; Science, Myth, Religion, and the Supernatural; Culture Change; and Anthropology and the Modern World.) In the first unit, "I avoid definitions, and immerse the students right away in an ethnography such as Forest People or Coming of Age in Samoa. That way each student has a base to use for comparison and can develop a holistic view right away."

THE TEACHERS' CORNER:  
USING CREATION MYTHS

In the earliest times on earth, there were no animals in the sea. People did not need blubber for their fires, because newly drifted snow would burn...In those days there was no ice on the sea. This is a distant memory of the time when the first people lived on earth... Both men and animals lived on earth, but there was no difference between them. Men could become animals and animals could become men, and they all spoke the same language.

--Netsilik Eskimos

In the beginning Pundjel decided to make man out of clay. With his big knife he cut three large sheets of bark. On one of these he placed a quantity of clay and worked it into a proper consistency with his knife. When the clay was soft, he carried a portion of one of the other pieces of bark and he commenced to form the clay into a man...

--Australian Aborigines

In the beginning there were no men on earth. The people lived in the sky with Akonge and they were happy. But there was a woman named Nbokamu who bothered everybody. One day Akongo put the woman in a basket with her son and her daughter, some cassava, maize, and sugarcane and lowered the basket down to the earth. The family planted a garden on earth and the garden flourished through their care.

--West African creation story

What can stories like these teach?  
How can teachers use creation stories in the classroom?

Anthropology is the study of the origin and nature of human beings. What better place to begin than with various people's search into basic origins as expressed through creation stories handed down from time immemorial.

Creation stories, obtainable in any school or university library, reflect the values, fears, and hopes of a people, but they also reveal day to day culture. A teacher can present a creation story as a kind of 'artifact' from which students derive information about a people's environment, economy, and society as well as the more deeply held values, hopes and fears. A class can be divided into several groups, each working on a single creation story, trying to draw as much information as possible about the culture, and at the end trying to identify which specific culture the story comes from.

After students have read and discussed several creation stories, they should be able to list characteristics which these stories have in common. For example, creation stories provide answers to similar questions: where did we come from? who or what created us? of what substance are we made? what is our relationship to other animals? These are questions basic to man, but also basic to anthropology itself.







### UPCOMING EVENTS

Nov. 8: "Religion and Objects, Myth and Folklife Museums: The Production of Meaning in Historical and Modern America," by Russ Handsman, American Indian Archaeological Association. One of a series of Anthropology Talks to be held in Woods Hall, Room 0104, University of Maryland at 4 p.m.

Nov. 14: "Action Forum for the Survival of the Yanomamo Indians." An evening of speeches and slides on the Yanomamo of Northern Brazil who are threatened by highway construction, mining, and ranching. Tentative speakers are anthropologists Dr. Shelton Davis and Dr. Laura Nader, consumer advocate Ralph Nader, and human rights advocate Isabel Letelier. A native American speaker will draw the links between the Indian situation in North and South America. The forum will take place at 8 p.m. at the Carnegie Foundation Bldg., 1530 P St., N.W., Washington, D.C.

Nov. 15: "Russell Cave," by David T. Clark (Post-Doctoral Fellow, Department of Anthropology, Smithsonian Institution). Dr. Clark will discuss the subsistence strategies and technology employed by inhabitants of this deeply stratified site in Alabama occupied for over 9,000 years. Lecture takes place at 7:30 p.m. in the Naturalist Center, National Museum of Natural History.

Nov. 20: "Midwifery: The Modernization of a Folk Tradition," by Molly Dougherty, School of Nursing, University of Florida. Anthropological Society of Washington (ASW) meeting at 8:15 p.m. in the Ecology Theater of the National Museum of Natural History.

Nov. 20: "The Taphonymy of Early Man in the New World," by Gerry Haynes. The seminar takes place in the Archaeology Laboratory at Marist Hall, The Catholic University of America at 8 p.m. For further information and schedule of future seminars call Tim Thompson at 635-5080.

Nov. 27: "Archaeological Survey in West Virginia," by Kevin Cunningham and Bill Barse. Archaeology Laboratory seminar at Marist Hall, The Catholic University of America at 8 p.m.

Nov. 29: "Social History and Anthropology: An Interdisciplinary Approach," by Dr. James O. Horton, Assoc. Professor of History and Civilization, George Washington University. Seminar takes place in the Torpedo Arts Center in Alexandria at 7:30 p.m. For reservations call the Alexandria Archaeology Research Center at 750-6200.

Nov. 30: Illustrated lecture on contemporary Inuit Art by Dr. Jean Blodgett, former curator of Eskimo Art at the Winnipeg Art Gallery, Manitoba, to be held in the Baird Auditorium, National Museum of Natural History at 12 p.m. Presented in association with the current exhibit, Eskimo Narrative, of Eskimo sculptures and graphics in the Learning Center Gallery (NMNH). Lecture repeated 12 p.m., Dec. 1.

Dec. 1: Film. Sananguagat: Inuit Masterworks and Eskimo Artist - Kenojuak. Baird Auditorium, National Museum of Natural History at 2 p.m.

Jan. 21: "Two Threatened Worlds: The High Himalaya and Amazon Jungle," by George Schaller, author of The Serengeti Lion and The Year of the Gorilla. Dr. Schaller discusses his field study with wild animals through slides and film. For ticket information call the Smithsonian Institution Resident Associate Program, 381-5157.

## ANTHROPOLOGY AND EDUCATION: ORGANIZATIONS TO JOIN

American Anthropological Association (AAA) is the central professional organization of anthropologists. The AAA coordinates the activities and publications of societies representing more specialized subdisciplines. Members receive the quarterly journal, American Anthropologist, and the monthly Anthropology Newsletter, which includes a Placement Service listing. In addition, the AAA has available career publications and the Guide to Departments of Anthropology that describes facilities and programs at more than 250 schools and museums. For further information about membership and career publications, write to AAA, 1703 New Hampshire Ave., N.W., Washington, D.C. 20009 or call 232-8800.

The Anthropological Society of Washington (ASW) is the oldest anthropological society in America. During 1979-80, the ASW will begin its second century. ASW meetings are held the third Tuesday of every month in the Ecology Theater of the National Museum of Natural History (Topic this year: Anthropology and Health). For membership information write to ASW, 1703 New Hampshire Ave., N.W., Washington, D.C. 20009 (dues \$7.50).

The Council on Anthropology and Education (CAE) is a professional association of anthropologists and educational researchers concerned with the application of anthropology to research and development in education. The Council was organized in 1968 and its quarterly newsletter is issued to all members of CAE (dues \$10.00/year). Inquiries about

membership should be addressed to CAE, 1703 New Hampshire Ave., N.W., Washington, D.C. 20009. The quarterly publishes articles about various education topics, including the teaching of anthropology at the pre-college level.

The Museum Education Roundtable (MER) is a non-profit organization for those interested in museum education and teaching at all levels. It aims to keep educators in touch with each other, disseminates information about the field, and promotes interest in local museums. The quarterly publication Roundtable Reports, includes announcements of training programs, reports of conference meetings, descriptions of innovative programs, a calendar of events, and articles concerned with museum education. Members are regularly invited to participate in meetings, outings, workshops and other events relevant to museum education. Annual membership is \$15.00 (tax deductible). Write to MER, c/o Ken Yellis, National Portrait Gallery, F & 8th Sts., N.W., Washington, D.C. 20560.

Washington Association of Professional Anthropologists (WAPA) is "a group of persons who, by reason of training and interest, seek to develop anthropological knowledge and apply it to the needs of society." WAPA offers an opportunity to expand one's range of contacts and employment opportunities as the association actively seeks to increase job opportunities for professionals in full- and part-time employment. WAPA holds monthly meetings, publishes a newsletter and membership directory, and holds a potluck social event twice a year. To join, send your home address, business address, and telephone numbers with the membership fee (\$10 for regular members, and \$5 for students and those not employed) to WAPA, P.O. Box 8709, Washington, D.C. 20011.







### MONKEYS, APES, AND HUMANS: THE STORY OF PRIMATES

"Monkeys, Apes, and Humans" is a new program for junior and senior high school students sponsored jointly by the National Zoological Park and the National Museum of Natural History. This program combines the resources and viewpoints of both zoology and anthropology. Students learn to observe and collect data on primate behavior, formulate hypotheses based on observation of living and skeletal forms, and compare and contrast the physical and social development of monkeys, great apes, and humans.

The program lasts approximately eight hours -- spread out over several visits. Although visits may be arranged to suit individual class needs, the following schedule is suggested:

- Week 1: National Zoo, 2 1/2 hrs.
- Week 2: Museum of Natural History, 2 1/2 hrs.
- Week 3: Museum of Natural History, 2 1/2 hrs.

Typically, during the first day at the Zoo, students view a short film about a monkey mother and infant, in order to learn observational and analytical skills. Following this, students visit the Monkey House and work in groups to observe behavior such as interaction, locomotion, or communication.

On the second day, at the Museum of Natural History, the group participates in an introductory exercise in the classification of the primate order that includes a detailed comparison of the skeletons of the major primates.

On the third day, again at the Museum of Natural History, the students focus on the development of humans through time, using exhibits and actual skeletal materials. A final discussion is held to review the highlights of primate physical and social development, and to provide an opportunity for students to discuss more fully the unique nature of man's cultural heritage.

To arrange for your class to participate in this new and stimulating program, call the Office of Education, National Museum of Natural History, at 381-5304 or call the FONZ at 232-7703.

\* \* \* \* \*

### MUSEUM OFFERINGS FOR TEACHERS

The Smithsonian Institution's Office of Elementary and Secondary Education offers free programs and special workshops for teachers. Teachers can keep abreast of activities by checking Let's Go to the Smithsonian, a booklet of learning opportunities for schools, 1979-1980, which is sent to all elementary and secondary schools in the Washington, D.C. metropolitan area.

## WESTERN CIVILIZATION: ORIGINS AND TRADITIONS

The newest anthropology hall in the National Museum of Natural History, Western Civilization: Origins and Traditions, displays such a variety of objects and scope of history that it appears, at first, overwhelming. Teachers especially may need to develop ways to help their students learn from such a rich and complex exhibit.

Lesson tours for junior and senior high school students are scheduled through the Museum's Office of Education (381-6135). For those secondary teachers who prefer to organize their own museum tour, the following information can help you. First, visit the exhibit yourself and allow time to get an overview of the entire area. Look for the main themes and then work through the areas of the hall that are relevant to your special needs.

Before visiting the Western Civilization Hall, students can locate on a map -- and discuss -- the significance of geographic locations in the exhibit (e.g. Mohenjo-Daro, Troy, Sumer, Carthage, Rome). Students can also examine the geography and history of West Asia, North Africa, and Europe in magazines, books, and films, and become acquainted with terms such as domestication, cuneiform, epic, ziggurat, and city state.

The exhibit demonstrates that the process of western civilization has become increasingly complex. Tour objectives can be built around the following concepts:

\*How big game hunters developed a way of life in the late Ice Age.

\*How hunters gradually became farmers by controlling plants and animals and building the early farming villages.

\*How people built larger communities and developed the urban way of life.

\*How bureaucrats, the army, and the nobility developed the modern state.

\*How soldiers, armies, warfare, craftsmen, merchants, and competition participated in the expansion of trade and empires.

\*How cultural traditions have persisted.

When observing the Hall, students can read, for example, the translation in the exhibit of ancient inscriptions written during the second millennium B.C. to learn about the life of the people in the Middle East. Examples include inscriptions from a figurine of Rim-Sin, a King of Larsa, and two 18th Dynasty Egyptian stele. Additionally, students can deduce information about the physical attributes of the people who lived in the eastern Mediterranean from 20,000 B.C. to 500 A.D. by using data given in the Hall.

Follow-up projects can involve students in researching the names of the people, (Alexander the Great, Hammurapi, Ptolemy), places, special events, and literary allusions (Iliad and Gilgamesh) in the exhibit; and discussing ancient architectural styles and their relationship to climate, raw materials, technology, and engineering knowledge.

These teacher strategies are more fully explained in a teacher's guide available from the Office of Education. This booklet also contains a bibliography and suggested pre- and post-visit activities.

Laura McKie



## D.C. AREA TEACHING RESOURCES

The D.C. area is rich in anthropological resources. Most teachers probably look for these in the local museums, public libraries, and universities which do, of course, offer a wealth of material. Yet, there are many less familiar institutions in the area which can also provide students with valuable opportunities for learning in the fields of anthropology. Among these are - The Alexandria Archaeology Research Center (AARC), The Caribbean American Intercultural Organization, and Embassies.

At AARC, professional archeologists and volunteers work together to conserve and interpret historic sites in Alexandria. Individual high school teachers and students may become AARC volunteers and subsequently learn through practical experience techniques of field excavation, surveying, and laboratory processing. Teachers and high school students interested in becoming volunteers can call 750-6200. Evening seminars are sponsored by the Center. High school groups can arrange to tour the excavation sites and laboratory. There is also a new Alexandria Archaeological Research Museum located on the second floor of the Torpedo Factory Arts Center, on King Street in Alexandria where the AARC is also located. The museum is open to the public Friday through Sunday, 11 a.m. to 4 p.m. To arrange special tours for school groups, call Bruce Weindruch at 750-5788.

The Caribbean American Intercultural Organization was established to promote relations between peoples of the Caribbean and the United States through cultural exhibitions, conferences, films, and other media. It is part of an informal network which connects programs in several institutions in the area, such as the Organization of American States and Howard University. Teachers are welcome to contact the organization for information and referral to audio-visual materials, publications, and programs on the Caribbean which are

found throughout this network. It can also serve as a good source of speakers on Caribbean peoples and cultures. For more information call 387-5115.

Most of the embassies in Washington provide speakers for school groups if contacted three or four weeks in advance. Suggest a specific topic of interest and describe what class preparation you will do for the lecture. Many embassies have also developed informative printed materials free of charge for teachers. In addition, the embassies of Indonesia and Japan have formal tours of their collections and environments (for example the Japanese Teahouse) which can be scheduled for student groups. Films, available free on loan, are another valuable service which some embassies provide. Below is a list of just a few of these films which might be of interest to anthropology teachers.

<u>Panoply of Ghana</u> (Ashanti regalia)	Embassy of Ghana
<u>Kuchipudi Dance</u> (origins in 15th C. and dance based on Krishna legends)	Embassy of India
<u>Chanoyu-Tea Ceremony</u>	Embassy of Japan
<u>Maori Arts and Culture</u>	Embassy of New Zealand
<u>Archaeological Dance</u> (classical dance in different periods)	Embassy of Thailand

Catherine Burt

(Note: Information on these and other D.C. resources are compiled in information leaflets in the Anthropology Resource Center for Teachers located in the Naturalist Center of the National Museum of Natural History. The Center is open Wednesday through Saturday 10:30 a.m. - 4:00 p.m. and Sunday 12:00 p.m. - 5:00 p.m.)

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## PEACE CORPS SCHOOL PARTNERSHIP PROGRAM

The Peace Corps School Partnership Program can lead to a rich cross-cultural exchange between students in this country and students in Africa, Asia, or South America. The contents of packets sent between schools are determined by the objectives of teachers and their students. Letters, essays, photographs, small artifacts, and tapes of recorded music or folktales are among the kinds of items which have been used by school groups to share information and experiences.

To begin a partnership program, a class or school must first agree to support, by raising funds in its community, a particular Peace Corps project being carried out in a developing country (i.e. digging a well, building a classroom or granary). The Peace Corps volunteer for that project, in turn, agrees to send the class project progress reports, and to organize a cross-cultural exchange of materials.

The Partnership Program loans out a cassette/slide show and a film, which describe the program and suggest strategies for raising funds. Also available is a speakers bureau of returned volunteers to talk to groups about experiences overseas. Teachers interested in the program should contact Evelyn Bryne at 254-5324.

Catherine Burt

## AFRICAN STUDIES CENTER'S OUTREACH PROGRAM

The Outreach Program of the newly established African Studies Center at Howard University wants to create links with the pre-collegiate community as well as with area universities. Professor Theresa Ware, Outreach Program Coordinator, organized the October 1979 Outreach Roundtable. It brought together 30 Washington, D.C. metropolitan area elementary and secondary school teachers and curriculum specialists. They exchanged ideas on the status and need for integrating African teaching materials into the classroom.

A second Roundtable was held November 8 at Howard University from 9 a.m. - 3:30 p.m. to discuss a Teacher Development in Africa Training Institute, a summer study project in Kenya, and various organizational committees.

## FILMS AND STUDY GUIDES AVAILABLE

Documentary Educational Resources (D.E.R.) may be able to provide you with films and other study material. Since it was founded as a non-profit organization in 1971 by John Marshall and Timothy Asch, D.E.R. had been producing and distributing 16mm. ethnographic films for classroom use. At first the films had been used only at the university level, but increasingly high schools and elementary schools have used them successfully, particularly those dealing with the San peoples (Bushmen) and the Alaskan Eskimos. Study guides to some films are now available. For further information, write to D.E.R., 5 Bridge St., Watertown, Massachusetts 02172.

This newsletter is part of the George Washington University/Smithsonian Institution Anthropology for Teachers Program. If you wish to contribute an article or be on the mailing list, write: Ann Kaupp, Department of Anthropology, National Museum of Natural History, Stop 112, Smithsonian Institution, Washington, D.C. 20560.

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# anthro•notes

a newsletter for teachers

SMITHSONIAN

1995

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## JOURNAL ARTICLES OF NOTE

How can a teacher find time to identify the significant articles that appear each month, much less read them? The editors of *Anthro•Notes* have decided to help by reviewing articles relevant to subjects taught in school or important for updating knowledge.

"THE NEANDERTHALS" by Erick Trinkaus and William W. Howells (*Scientific American*, December 1979, 241(6):118-133) presents an overview of an "emerging new picture of the Neanderthals." The authors trace the history of ideas about Neanderthals, defining their physical characteristics, time depth, and geographic spread. Trinkaus and Howells differentiate the European Neanderthals from other contemporaneous populations, particularly in Africa and Asia. The European Neanderthals had a certain anatomical pattern, often called "classic Neanderthal", but "in our view they are the only Neanderthal." Describing the massive postcranial bones, the authors maintain that the "robustness reflects muscular power rather than primitive features." The Neanderthals had "the same postural abilities, manual dexterity and range and character of movement that modern man does."

"THE YANOMAMO INDIANS: VICTIMS OF GENOCIDE, CANDIDATES FOR EXTINCTION" by Kate Winslow (*American Indian Journal*, December 1979, 5(12):2-7, published by the Institute for the Development of Indian Law, 927 15th St., N.W., Suite 200,

Washington, D.C. 20005; single copy \$3.50) provides a review of the Yanomamo's plight and the campaign to rally international support for a 16 million-acre park to be set aside for them. Included in the article is an account of the last five years of Yanomamo history, written by anthropologist Shelton Davis as part of a defense paper for the Yanomamo park proposal. The Brazilian government has counter-proposed twenty-one miniscule, disconnected Indian reserves for the Yanomamo, who live in a large territory that is being encroached upon by multinational companies looking for minerals and potential cattle ranches. The article asserts that the Yanomamo Indians are "facing perhaps their biggest battle," a fight for their very survival, "which if lost could lead to the annihilation of the largest isolated group of Indians in Brazil."

"USE OF BARLEY IN THE EGYPTIAN LATE PALEOLITHIC" by Fred Wendorf et al. (*Science*, September 28, 1979, 205(4413):1341-1347) details important new discoveries possibly dating the origins of food production to 10,000 years earlier than previously documented. Grains of barley have been recovered from Late Paleolithic sites firmly dated between 18,300 and 17,000 years ago. If these sites represent the first steps toward food production, old assumptions regarding the origins and consequences of the "Neolithic Revolution" must be re-evaluated. In the Nile Valley, grain was used intensively for more than 6,000 years "without any evidence for changes in settlement size, population density, or social organization." The process, in Egypt at least, neither began under adverse circumstances nor resulted in major social changes.

### "CAN AN APE CREATE A SENTENCE"

by H.S. Terrace et al. (Science, November 23, 1979, 206(4421):891-902) and "HOW NIM CHIMPSKY CHANGED MY MIND" by H.S. Terrace (Psychology Today, November 1979, 13(6):65-91) report one researcher's five year project trying to demonstrate that apes can form sentences. Washoe, Sarah, Lana -- chimpanzees utilizing vocabularies in visual language -- are well known to teachers of anthropology. For the past decade various psychologists, primatologists, and linguists have claimed that language can no longer be considered the exclusive domain of human beings. But are chimpanzees truly capable of learning the semantics and syntax characteristic of human language?

Terrace concentrated on one infant chimp's language acquisition, studying more than 20,000 combinations of two or more signs. Much to his disappointment, he concluded that "an ape's language learning is severely restricted. Apes can learn many isolated symbols (as can dogs, horses, and other nonhuman species), but they show no unequivocal evidence of mastering the conversational, semantic, or syntactic organization of language."

\* \* \* \* \*

### SURVIVAL INTERNATIONAL

A Washington committee has formed a chapter of Survival International, a 10-year old London-based organization dedicated to the protection of the rights of indigenous people worldwide. The Washington committee plans to utilize the special resources of the area in working on both international and U.S. issues and will sponsor a special event in March similar to the November forum held on behalf of the Brazilian Yanomamo Indians. For further information call 676-1519.

### THE NATURALIST CENTER

Educators, naturalists, and students! Come take advantage of the unique facility called The Naturalist Center. Located in The National Museum of Natural History, the Center gives the public immediate access to collections of natural history specimens.

The Center is divided into seven areas: Anthropology, Rocks and Minerals, Plants, Insects, Vertebrates, Invertebrates, and Fossils. Each area contains local specimens (D.C. and vicinity) as well as items from elsewhere.

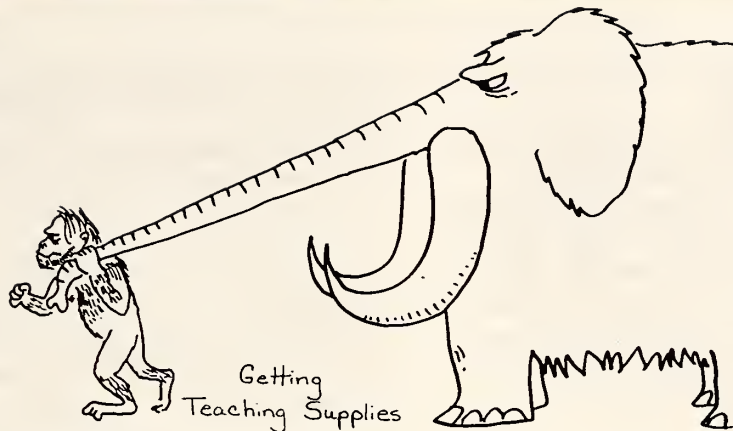
Instructors have had students use the well-equipped Center for research projects, self-study, and special assignments as well as for specimen identification. A few projects that students have completed enthusiastically, using the Center's resources, include: identifying American Indian projectile points and pottery sherds; classifying insects; analyzing rocks and fossils to determine the geological history of a particular area; identifying basic bones with a self-teaching manual to human osteology; comparing mammal osteology; researching extinct life of the D.C. area; identifying and zoning plants; and examining microscopically samples from local ponds and streams.

The Naturalist Center helps educators offer exciting enrichment to their curriculum while introducing students to a new facility that may encourage their further study of natural history.

The Center is open Wednesday through Saturday, 10:30 a.m. to 4:00 p.m.; Sunday, 12:00 noon to 5:00 p.m.

Linda J. Reichlin  
Assistant Manager  
The Naturalist Center





## ANTHROPOLOGICAL TEACHING SUPPLIES

### BASIC RESOURCES:

Ward's Natural Science Establishment  
For free catalog, write: P.O. Box 1712  
Rochester, New York 14603  
(716) 467-8400

Various supplies for teaching human evolution, archeology, and human genetics are available. Materials on human evolution include: filmstrips with study guides; transparencies of primate and human skulls; and facial restorations of early man from the American Museum of Natural History. A collection of authentic stone tools with an illustrated text outlines the evolution of human stone technology and describes the function of each tool and how it was made. Plastic replicas of historic and prehistoric artifacts can be purchased. Human genetics can be investigated with lab-aid experiment kits for blood grouping and blood typing as well as with special kits for exploring human variation and natural selection. Ward's also offers osteological teaching aids -- human skeletons (articulated and disarticulated) and human skulls. Their skeleton repair service rewires and cleans natural bone skeletons.

Carolina Biological Supply Company  
For free catalog, write: Burlington,  
North Carolina 27215, or call toll free,  
(800) 334-5551

C.B.S. offers an extensive selection of teaching materials for human evolution and osteology. Slide sets of early human skulls and a large selection of fossil skull replicas and half skull sets including those of the great apes are available. C.B.S. also offers primate and human skulls and skeletons, and dental castings of monkeys, apes, and man. Replicas of prehistoric and historic artifacts can be purchased including those from the study collection of the Chicago Field Museum. In addition, C.B.S. provides a wide variety of teaching materials such as North American Indian archeology sets, a pottery reconstruction set, and an Egyptian funerary game. Human genetic traits set, several blood typing and grouping kits, and PTC (taste) papers are available for sale.

### ANTHROPOMETRIC SUPPLIES:

Siber Higner & Co., Inc.  
1250 Broadway, New York, New York 10001  
(212) 563-5213

Write for their complete listing of anthropometric instruments for sale, including anthropometer, skinfold caliper, and bone supporters.

FOSSIL REPRODUCTIONS:

University Museum, 34th & Spruce Sts.  
Philadelphia, Pennsylvania 19104

Catalog of Fossil Reproductions  
lists a large selection of fine rubber molds, most of which were made directly from original fossil material. Many of these molds come from F.O. Barlow's "accurate and artistic plastic reproductions."

ARTIFACT REPRODUCTIONS:

Denver Museum of Natural History  
Department of Anthropology  
City Park, Denver, Colorado 80203  
(303) 575-3964

Paleo-Indian materials and some Old World reproductions are available from their museum collections.

Hubbard Scientific Co.  
Northbrook, Illinois 60062  
(312) 272-7810

Write for their free catalog of Old and New World artifact reproductions.

Bruce Bradley  
P.O. Box 834, Oracle, Arizona 85623  
(602) 896-2577

Teaching collections of stone reproductions of Old World Paleolithic and New World Paleo-Indian artifacts.

ANTHROPOLOGICAL FILM RESOURCES:

Anthropology Films. Extension Media Center, University of California, Berkeley, California 94720.

Documentary Educational Resources  
5 Bridge St.  
Watertown, Massachusetts 02172

Anthropology films and study guides for classroom use.

Films as an Aid to Archaeological Teaching, 1st ed., 1972.

The Archaeological Institute of America  
260 West Broadway, New York, New York 10013  
Catalog price: \$1.50

Karl Heider's Films for Anthropological Teaching, 6th ed., 1977 is available for \$5.00 from the American Anthropological Association, 1703 New Hampshire Ave., N.W., Washington, D.C. 20009.

National Geographic Society  
Washington, D.C. 20036

Request The National Geographic Educational Services Catalog.

The Pennsylvania State University  
Audio Visual Services, Special Services Bldg.  
University Park, Pennsylvania 16802  
(814) 865-6314

Write for the catalog, Films: The Visualization of Anthropology, 1980.

FILMSTRIP REVIEW

A new filmstrip cassette set, "Mammals, Primates, and Man," may be of interest to secondary science or social studies teachers. Part I, "The Family of Primates", traces the major developments in the evolution of animal life and describes the characteristics unique to mammals and primates, including man. Part II, "The Family of Man", explains the adaptations primates have made to live successfully in their ecological niches. Characteristics such as stereoscopic vision, large cerebrum, and speech are stressed. Recent fossil remains of *Australopithecus afarensis* discovered in 1975 by Donald Johanson are discussed in detail. The filmstrip set is available from Educational Dimensions Group, Box 126, Stanford, Connecticut 06904, for \$60. A 30 day preview can be requested.

Frederick Hardy  
Montgomery County teacher



# odyssey

# odyssey

## ODYSSEY SCHEDULE

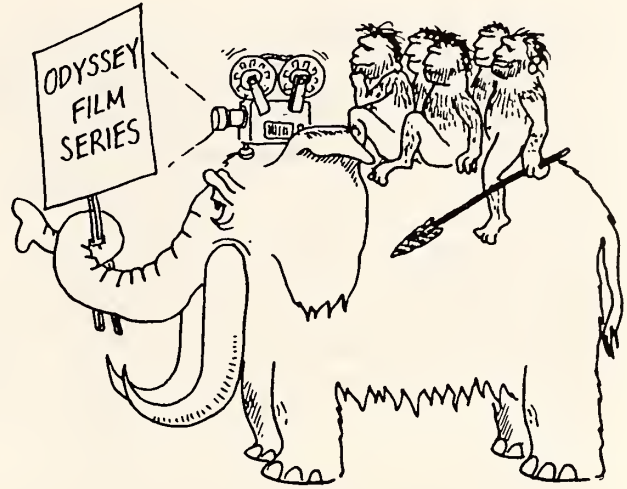
April 6: Seeking the First Americans\*  
April 13: N!ai, The Story of a !Kung Woman\*  
April 20: Franz Boas\*  
April 27: Shipwreck: La Trinidad Valencera  
May 4: The Incas\*  
May 11: Ongka's Big Moka  
May 18: Other People's Garbage\*  
May 25: Masai Women  
June 1: The Chaco Legacy\*  
June 8: Cree Hunters of Mistassini  
June 15: Key to the Land of Silence  
June 22: The Sakuddei

ODYSSEY programs will be shown on public television, Sundays, 8 p.m. EST. Check your local listings. Each film is repeated the following Saturday at 8 p.m. EST.

\* \* \* \* \*

ODYSSEY, a new 12-week public television series on archaeology and anthropology, begins April 6, 1980. Michael Ambrosino, creator of the highly acclaimed NOVA science series, produced ODYSSEY. A teacher's guide to six of the programs (see asterisks above) was written by Alison S. Brooks, Ruth O. Selig, and JoAnne Lanouette and will be published as an insert to the March 1980 issue of Social Education. The guide includes film synopses, background information, questions for watching the films, and bibliographies. Public Broadcasting Associates will distribute an additional 8,000 copies of the guide to junior college and high school anthropology faculty and museum educators. For further information call, Laurie Manny, Public Broadcasting Associates, Inc., (617) 783-7008.

The following class discussion questions and further activities supplement the material in the guide. They are designed for use after each film is viewed by a class of students. This issue of Anthro·Notes includes questions and activities from four ODYSSEY films;



the spring issue of Anthro·Notes will include questions and activities for the films to be viewed May 18 and June 1.

\* \* \* SEEKING THE FIRST AMERICANS \* \* \*

### Discussion Questions:

1. Who were the first Americans? Where did they come from and when? Why don't we know the answers?
2. Why are archaeologists searching in Siberia, Alaska, and Northern Canada for clues to the origins of the first Americans?
3. What qualities do you think make a good archaeologist? What skills and training would be useful to an archaeologist searching for early humans in America?
4. Dennis Stanford states at one point in the film: "For years we've been looking on 11,000 year old terraces. What have we been finding? 11,000 year old sites -- isn't that odd?" How do expectations and preconceptions determine what an archaeologist finds? Cite evidence from the film that chance discovery and carefully reasoned looking each play a role in successful archaeological work.
5. Dennis Stanford and Vance Haynes differ on two crucial questions. Where did Clovis technology originate? How did it spread across the Americas in less than one thousand years? For each of these questions, ask students to explain the issues being debated

## Further Activities:

1. Have students save all bones (meat, fish, poultry) from a week of meals at home. They should roast half the bones at 300° and boil the other half (1/2 hour). Bring in both halves in 2 plastic bags. Exchange bags with a classmate and then examine the contents. Identify what animal each bone came from. What part of the animal is the bone from? Is the bone cut or broken? Are there any knife marks or tooth marks? How are the boiled bones different from the roasted ones? Could you tell if people roasted or boiled their meat? Students with dogs at home could allow the family dog to chew on some large bones. Students then examine the resultant markings.

2. With students, research wild plant foods in your area and design a dinner menu. Call the Audubon Society or National Park Service for books or tours of edible wild plants. What animals were in your area when the first Europeans came?

3. With fifty feet of shelf paper, construct a time line of important events marking human occupation of the North American continent from 50,000 years ago to the present with one foot equaling 1,000 years. (Or, with 12.5 meters of paper, 25 centimeters equals 1,000 years, 1 centimeter equals 40 years.)

## \*N!AI: THE STORY OF A !KUNG WOMAN\*

### Discussion Questions:

1. What does N'ai remember from her childhood which illuminates traditional San life? What were the sweet memories? The uncomfortable memories?

2. What is N'ai's attitude towards marriage? Compare her view to that of eight-year olds in American society.

What is the economic justification in the film for arranged marriages? Why is N'ai's view of marriage different from that held by popular American adult culture? What other institutions fill the roles in N'ai's life that in our life are filled by marriage?

3. What is the evidence in the film that traditional San life was closely tied to nature's cycles? What advantages might San people see in attaining a more 'modern' lifestyle, and what disadvantages?

4. How do men's jobs and lives differ from those of women in !Kung society? How independent were women from the control of men in N'ai's youth? In her changed adult life at Tsum!kwe? Did the !Kung have more or less individual freedom than we do?

5. Discuss how religion and healing were intertwined in !Kung life. How is our treatment of a sick person different from that of the !Kung? How is it similar, particularly for children?

## Further Activities:

1. Have students record what foods they eat for a week, together with approximate amounts. (Calories can be calculated from a calorie chart, if desired.) How much of the food was from plants and how much from animals? How many different kinds of plants and animals were eaten? What is the original country where each of these foods grows or was domesticated in ancient times? If students had to survive for a week on the wild food available to them within a five mile radius of their home, what plants and animals could they eat?

2. Interview a parent or a grandparent about their childhood and their adolescence. Ask about the technological, social, religious or moral, and ethical changes he/she has experienced since childhood. In which ways was life preferable then? Now? What was responsible for the changes? Were they avoidable?

3. Hold an ethical debate on the future of the !Kung, with class members taking the roles of the San, the army, the local farmers,



the government, the anthropologists. Are "whites" wholly to blame for the lot of the !Kung? Could their fate have been avoided? Is this a reasonable price to pay for the economic progress of a majority? What responsibility does the government have toward the San? Can you think of a way to improve their situation while respecting their cultural values? What are the most important guidelines for the government to follow? Is the hunting and gathering way of life doomed for the San?

\* \* \* FRANZ BOAS \* \* \*

## Discussion Questions:

1. How did Boas' personal experiences affect his view of the Eskimo and Kwakiutl? How did he become an anthropologist? What is an anthropologist?

2. What were Boas' views on race? Why were they important in his day?

3. Why is Boas considered a great anthropologist and an intellectual giant by his colleagues? What, if anything, do the students admire about Boas? Are there any intellectual giants in our society today? Who? If not, why not?

4. Ask students if they would like to be anthropologists? Which cultures fascinate them the most, and why? Have they visited other cultures? What differences were most striking? What was the same? Having seen the film, how would they study another culture?

5. Why is it important to study other cultures? What is the value of anthropology in understanding human differences? In understanding our society, and ourselves?

6. What is a potlatch? What function did it serve? Why did the Canadian government outlaw this practice? Was the government right to pass such a law?

## Further Activities:

1. Have students design a museum exhibit case utilizing objects to illustrate American life in the twentieth century. What would they choose? How would they display these objects? What aspects of life would be difficult to show?

2. Have students bring in newspaper or magazine photographs which convey actions or sentiments without the use of words. Analyze what clues and details in the pictures reveal what is going on. Discuss why people from other cultures might misinterpret the meaning of the photographs.

3. Have students film or photograph a school activity. Show the film or photographs first to the participants in the activity, then to a group of non-participants. Compare their accounts of what is in the film or pictures. How important is it to be a participant-observer in what you are photographing?

4. Have students research the role of totem poles or masks in Northwest Coast Indian societies. Then have each student make a totem pole or a mask reflecting the important groups to which he or she belongs.

## \* \* \* THE INCA EMPIRE \* \* \*

### Discussion Questions:

1. It was "easier for the Inca to establish their settlements high up in the Andes than for the archaeologists to now do their kind of work". What are the advantages and disadvantages of the Andean environment for an Inca? a farmer today? an archaeologist?
2. Why is the road system a key to the achievements of the Inca? How did their road system differ from the construction and function of our Interstate Highway system?
3. The Inca people paid no monetary taxes or tribute. How then did the Inca government have the resources to govern? Which system do you think works better, ours or theirs?
4. How did the Inca cities differ from your students' concepts of a city? How did these cities help the government harness a huge population to build an empire? What other methods of integration did the Incas use? Why were the cities abandoned so quickly after the Spanish came?
5. The Inca had no writing system. How did they keep records? What records do your students think were the most important for running their empire? Writing is often considered one of the hallmarks necessary for a civilization. Since the Inca Empire lacked writing, do the students consider the Inca Empire a civilization? Why, or why not?
6. Have your students imagine that the United States is conquered in 1986. Two hundred years later, in 2186, archaeologists start to excavate the area where your students live now. What will the archaeologists find? What won't they find? What won't archae-

ologists ever be able to find out about Inca life?

### Further Activities:

1. Have students construct a large-scale relief map from Quito, Ecuador to Cuzco, Peru. Where and how would they construct a road system? What are the engineering problems?
2. Have students study the regional and national transportation networks in and out of Boston, St. Louis, Denver and Los Angeles. How have changing transportation systems affected the course of American history?
3. Have students read and discuss Stephen Vincent Benet's short story, "By the Waters of Babylon", in which a young boy discovers the "American civilization" in the future, long after its demise. Compare Benet's view of American civilization with the film's view of the Inca civilization.
4. From research, have students draw a mural or construct a model of Machu Picchu or Cuzco in Inca times.
5. The film presents a benevolent account of the Inca Empire. Have students read other sources to determine the acceptance of this viewpoint. What accounts for the differences in interpretation?
6. Have students research what technology in the past history of the United States could help us today cope with our energy shortages?



## UPCOMING EVENTS

Mar. 5: "Alexandria Social History: Methods and Sources " by Dr. Philip Terrie. Seminar takes place at The Alexandria Archaeological Research Museum located on the 2nd floor of the Torpedo Factory on Union St. at 8 p.m.

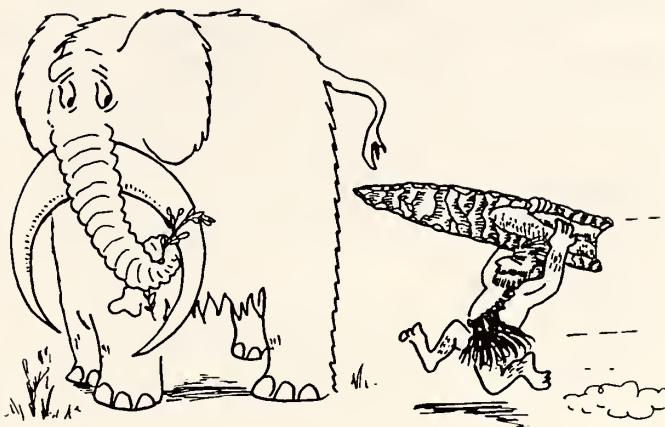
Mar. 18: "Modernization: A Health Hazard for Polynesians " by Dr. Paul Baker. Anthropological Society of Washington (ASW) meeting at 8:15 p.m. in the Ecology Theater, National Museum of Natural History.

Mar. 21&22; 28&29: "The Legacy of Margaret Mead". A special symposium at The American University, coordinated by Dr. Philleo Nash, will examine Margaret Mead's contributions to anthropology through her major works and films. Guest speakers who have known and worked with Dr. Mead will participate in the seminars. For further information and registration forms, write to the Office of Conferences and Workshops, Division of Continuing Education, The American University, Washington, D.C. 20016, or call (202) 686-6806. Participants can receive credit upon completion of additional written essays.

Mar. 24: "Excavations at a Conestoga Indian Grave Site, Lancaster County, Pennsylvania " by Dr. Jay Custer. Discussion takes place in the Archaeology Laboratory at Marist Hall, The Catholic University of America at 7:30 p.m. For further information and schedule of future talks, call Tim Thompson at 635-5080.

Mar. 26: "Apes and Language " by Dr. Thomas Sebeok. Anthropology Talk in Woods Hall, Room 0104, University of Maryland at 4 p.m.

April 2: "Hypertension: Can Anthropology Lower Blood Pressure " by Benjamin Amick. See March 26.



April 2: "Patterns of 19th Century Dietary Changes on the 500 Block in Alexandria, Virginia " by Dr. Thomas Davidson. See March 5.

April 8: "Torngat, Archeology at Labrador's Arctic Gateway " by Dr. William Fitzhugh. Smithsonian Resident Associate Program. For information call 381-5157.

April 17: "Wolves and Bison, Elephants and Archeology; New Clues and Old Bones " by Gary Haynes. See April 8.

April 27: "Cultural Identification of Spanish Speaking Immigrants: Traditional verses Nontraditional " by Dr. Rita Ailinger. See March 18.

\* \* \* \* \*

Summer Study in Mexico, George Washington University Field Program in Mesoamerican Archaeology and History, June 12-July 10, 1980. An interdisciplinary approach to examine ancient and modern Mexican culture. For itinerary and application forms, write Dr. Robert L. Humphrey, Department of Anthropology, George Washington University, Washington, D.C. 20052. May 1: Deadline for deposit.

THE TEACHERS' CORNER:ANTHROPOLOGY LINKS WITH GEOGRAPHYGeographyAnthropology

Introduction and Skills . . . . .	Introduction, Who is Man?
The Arctic . . . . .	Technology and Adaptation
The Soviet Union . . . . .	Socialization
The Middle East . . . . .	Evolution
China . . . . .	Medical Anthropology
Europe, Canada, and the U.S. . . . .	Urban Anthropology

Eighth graders at Newport Middle School are discovering anthropology mixed in with geography this year. Each unit of study relates to an anthropology topic as shown above. We hope this exposure to geography and anthropology will increase students' awareness of how these social sciences interrelate.

During the Introduction, students note characteristics they associate with humans, writing their own definition of man and relating the study of humans to geography, anthropology, and other social sciences. The Arctic unit focuses on human adaptation to environment through the use of tools, both traditionally and today.

In the Soviet Union unit, students study life in the Soviet Union and describe socialization into the culture. The Middle East unit incorporates a study of evolution. Students define what a theory is and explain various theories of human evolution in relationship to Middle Eastern history.

The study of China centers around medical anthropology. Students

list the characteristics of the medical systems of the United States and China and discuss the differences of modern and traditional medical practices. A father of one student was part of a medical team visiting China in the mid-1970's. In a two day presentation, the student brought in a "barefoot" doctor's bag, showed 200 slides on China, and displayed acupuncture needles. During the unit, students talked about their families' medical practices. They also prepared comparative charts on the medical practices of China, their own family medicine, and folk medicine in the United States.

The last topic of the year, Urban Anthropology, parallels the study of Europe, Canada, and the United States. Students list the elements of a city and categorize elements of an urban area. As a culminating activity, students plan a new city which tries to eliminate problems common to today's cities and meets more of the people's needs.

So far this integration of anthropology and geography is working well. We have just completed the China unit and student interest in geography seems quite high indeed.

Linda Spoales and Laura Robeson  
Montgomery County teachers  
Participants, 1978-1979  
Anthropology for Teachers Program



## DYNAMICS OF EVOLUTION HALL

A movie showing variation in human facial features. A kitchen swarming with three generations of cockroaches. Hundreds of plant and animal specimens from museum research collections. These are some of the dramatic exhibits in the Dynamics of Evolution Hall that opened in May 1979 in the National Museum of Natural History. Instead of exhibiting fossil material to illustrate the history of life on earth, this hall explains how evolution works.

What are the mechanics of the evolutionary process? By what methods does natural selection work? Once a species becomes distinct, how is it kept so? The Dynamics of Evolution Hall reveals how inherited traits create enormous variation in living things and how the environment acts on those variations to select species best adapted to survive.

Natural selection influences all living things. Anthropology teachers will find human material incorporated in several topics: population potential, human genetics, variation, sickle-cell anemia, and ancestry. All exhibits in the hall are based on scientific research.

Teachers who wish to conduct their own tours of the hall may write (Scheduler, Office of Education, Room 212, National Museum of Natural History, Smithsonian Institution, Washington, D.C. 20560) or call (202) 381-6135 for pre-or-post-visit materials and suggestions. Tour objectives might be built around the following themes:

- \*how the evolutionary process works for all life forms
- \*how the environment selects those who will survive
- \*different aspects of human variation

\*how culture helps override natural selection processes.

Education specialists in the Office of Education are available most weekday afternoons to help teachers with suggestions for using the hall. A teachers' guide to the Dynamics of Evolution Hall is available.

Guided tours of the hall may be scheduled by calling (202) 381-6135. Lesson tours are designed for junior and senior high school students.

A tour of this hall can tie into other museum exhibits and tours. Museum worksheets are available on the History of Mammals (fossils) and Comparative Osteology (skeletons of living animals) for students to use on their own. Other guided tours relating to the evolution theme are: "The Emergence of Man", "Prehistoric Life", "Monkeys, Apes, and Humans", and "Comparative Osteology of the Vertebrates".

Rebecca Mead  
Education Specialist



## ANTHROPOLOGY FOR TEACHERS PROGRAM

The Anthropology for Teachers Program is a National Science Foundation-funded program for science and social science teachers in the Washington, D.C. metropolitan area. It is conducted by the Anthropology Departments of The George Washington University and the Smithsonian Institution. The program consists of three parts:

1. a two-semester, tuition-free graduate credit course;

2. The Anthropology Resource Center for Teachers, located in the Naturalist Center, National Museum of Natural History, Smithsonian Institution; and

3. Anthro·Notes, a newsletter for teachers published three times a year.

Anthro·Notes and the Anthropology Resource Center are available to all teachers. The course, offered in three sections, enrolls 55 science and social science teachers from the Washington metropolitan area.

The eight-credit, tuition-free, graduate course, Anthropology 255-256,

includes both physical and cultural anthropology. The course is specifically designed for secondary school teachers interested in: 1) integrating anthropology into their curricula in biology, social studies, geography, and history; 2) learning of recent research developments; and 3) meeting with university and museum specialists.

Each month the course focuses on one topic in depth. Topics for 1979-1980 include: Primate Behavior; Human Evolution; Socialization in Non-Western Societies; Anthropologists in the Field; Human Variation; Magic, Religion, and Healing; Civilizations of the Past; and Anthropologists Look at America. The course combines lectures, discussions, monthly Saturday seminars with anthropologists, demonstrations of classroom activities, films and materials, and the creation and sharing of actual teaching units.

Applications for the 1980-81 Anthropology for Teachers Program will be available in April. For application forms or further information, write Dr. Alison S. Brooks, Department of Anthropology, Smithsonian Institution, Stop 112, Washington, D.C. 20560; or call JoAnne Lanouette, (202) 381-5961; or write/call Anthropology Department, The George Washington University, (202) 676-6075.



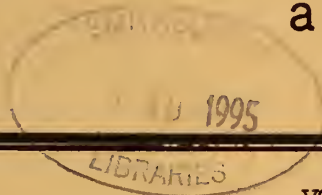
ANTHRO·NOTES is part of The Anthropology for Teachers Program. This program is funded by the National Science Foundation and administered by the Anthropology Departments of The George Washington University and the Smithsonian Institution. Program Staff: Dr. Alison S. Brooks, Director; JoAnne Lanouette; Ruth O. Selig; and Dr. R. Kepler Lewis. If you want information about the program or your name added to the mailing list, write: Ann Kaupp, Department of Anthropology, National Museum of Natural History, Stop 112, Smithsonian Institution, Washington, D.C. 20560.

ANTHRO·NOTES Staff: JoAnne Lanouette, Ann Kaupp, Ruth O. Selig, editors;  
Dr. Robert Humphrey, artist.



# anthro•notes

a newsletter for teachers



vol. 2 no. 2

spring 1980

## APPLY FOR TEACHERS PROGRAM

Would you like to integrate anthropology into your curricula? Are you interested in recent research developments in anthropology? Would you like to meet university and museum anthropologists? If so, you can apply now for the 1980-1981 Anthropology for Teachers Program. Anthropology 255-256 is a TUITION-FREE, graduate credit course specifically designed for science and social science teachers in the Washington D.C. metropolitan area. It is funded by the National Science Foundation and conducted by the Anthropology Departments of George Washington University and the Smithsonian Institution. A background in anthropology is not necessary. The three course sections meet weekdays in Montgomery County, District of Columbia, and northern Virginia and once-a-month on Saturdays at George Washington University or the National Museum of Natural History. For further information, write Ruth O. Selig, Department of Anthropology, NHB- Stop 112, Smithsonian Institution, Washington D.C. 20560, or call her at 381-5961. Deadline for receiving completed application form is July 11, 1980.

## TEACHERS CORNER:

### ANTHROPOLOGY FOR HEARING IMPAIRED STUDENTS

Since the spring of 1979 at the Model Secondary School for the Deaf, hearing impaired students have been offered a new English/Social Studies course in anthropology. The theme of the course is human evolution, with a concentration on hominid origins. Some of the major questions are: What is human about different types of early man? How and where do anthropologists gather and interpret evidence? The course is now being taught for the third time.

The students are language disabled in vocabulary development and syntactical usage and comprehension. Their reading skills range between second and fourth grade levels. In general they do not relate and apply ideas and concepts to either previously learned information or new situations. The students also have poor notetaking skills and low attention spans, and lack confidence in their own learning abilities.

Because of the broad range of student difficulties, English and Social Studies are integrated during a two hour time period. The English component focuses on developing class discussion skills (watching, listening, responding, questioning, and building on each other's comments) and writing skills (logically developing an idea and writing in short, clear sentences). These skills are taught within the social studies focus on human evolution. The content ranges from primates to Cro-Magnon.

TEACHERS GUIDE TO ODYSSEY  
SEE PAGE 5.

As much media as possible is used to make a basically abstract theme as concrete as possible. A series of 35 slides on hominid origins was developed to help students gain a clearer idea of what hominids looked like, the skills they possessed, and the dangers they faced according to anthropologists. The students watch "Monkeys, Apes and Man"; "Dr. Leakey and the Dawn of Man"; two Jane Goodall films on chimpanzees and baboons; and a Man, A Course of Study film, "Animals in Amboseli." The films and slides also help the students study different types of living primates in order to better understand early man. However, we try to stress the tentative nature of such comparisons. Students also view films and slides on the Tasaday of the Philippines; Bushmen of the Kalahari; and Pygmy peoples of the Ituri rain forest. The students are concerned about the current conditions of these people.

Stories from the National Geographic (i.e., "Footprints in the Ashes of Time" by Mary Leakey, April 1979) as well as information in Maitland Edey's The Missing Link vol. 2 of "The Emergence of Man" series) are re-written to assist the vocabulary and syntactical development of the students. To practice formulating and explaining conclusions, the students read and discuss "evidence sheets." These sheets list discoveries of fossils and artifacts found at a particular site, some conclusions drawn from them, and a short explanation of the logic behind these conclusions. One or two examples of questions anthropologists might ask about the evidence and questions the evidence will not answer are included. After going through some complete "evidence papers" in class, the students practice drawing

and explaining conclusions on the basis of pieces of evidence.

In addition, the students classify survival skills that different types of early man had and did not have, underline factual errors and exaggerations in various stories on early man, and decide if specific quotations are true or false. They theorize in writing and in class discussions on such topics as how bipedalism may have begun, the nature and extent of early communication skills, and the importance of hunting vs. carrying and sharing long ago.

How have the students responded to this new anthropology course? They are not skipping class. They are asking more questions, writing more than ever before, and engaging in spirited debates. They know their use of English is improving and they are pleased.

Marilyn Nugent  
Bob Loftus  
Gallaudet College:  
Model Secondary  
School for the Deaf

#### ANTHROPOLOGY RESOURCE CENTER FOR TEACHERS

In planning your curriculum for next year or discovering new teaching ideas, visit the Anthropology Resource Center for Teachers. It is located in the Naturalist Center of the National Museum of Natural History, room C 219. Presently the collection includes multi-media curriculum kits such as Patterns of Human History, educational resource catalogs, bibliographies, and guides to resources in the Washington area. By the summer, it will also contain copies of teaching units designed by the teachers participating



in the Anthropology for Teachers Program during the last two years. Most of these non-circulating materials are designed for junior high and high school teachers of anthropology, geography, history, or biology, though some may interest community college and college teachers. The Naturalist Center is open Wednesday through Saturday from 10:30 a.m. to 4 p.m. and on Sunday from noon to 5 p.m.



\* \* \* \* \*

#### UPCOMING EVENTS:

May 20: "A Problem in Cultural and Physical Anthropology: the Epidemiology of Hepatitis B Virus" by Dr. Elizabeth Reed Dickie (University of Illinois). Anthropological Society of Washington meeting at 8:15 p.m. in the Ecology Theater, National Museum of Natural History.

June 4: "The Conservation of Organic Archeological Materials" by Linn Arden (AARC). Seminar takes place at 8 p.m. in the Alexandria Archaeological Research Museum located on the second floor of the Torpedo Factory, Union St., Alexandria.

June 5: "Forensic Anthropology: Skeletons Testify" by Dr. J. Lawrence Angel (Curator of Physical Anthropology, Smithsonian Institution). For ticket information call the Smithsonian Resident Associate Program 381-5157.

July 1: "Masterworks of Bronze Age China" by Robert Bagley (Department of Fine Arts, Harvard University) See June 5.

July 2: "Funding in Archeological Historic Preservation" by Mark Barnes (Office of Archeology and Historic Preservation). See June 4.

#### SUMMER OPPORTUNITIES FOR TEACHERS AND STUDENTS

Alexandria Archaeological Research Center has been exploring the social history of Old Town Alexandria through archival work and excavation since 1974. Established in 1733, Alexandria reflects many changes in economic focus, ethnic diversities, patterns of land use, and types of social stratification. Volunteer opportunities are available to survey and excavate this historic site by calling Steve Shephard at 750-6200. High school students are

welcome to apply. The following schools will be offering archeology field school programs this summer in cooperation with the AARC: George Mason's Department of Sociology (for information call Tom Davidson 630-4906); George Washington University (see page 4); and Howard University (for information call Laura Henley 636-6840).

(continued page 4)

American University sponsors a five week archeology field school from July 9 - July 11 at a local pre-historic, stratified site along the Potomac River in Virginia. In addition to modern excavation techniques, instructional topics will include topographic survey, soil sampling with core borings, site survey, and lithic and ceramic analysis. Laboratory sessions will be in the evenings at the university. High school students may receive college credit with permission of their guidance counselor. Volunteers are accepted for a minimum of one week. For further information write to Dr. June Evans, Department of Anthropology, The American University, Washington, D.C. 20046.

Catholic University is in its ninth season conducting an archeology field school at Thunderbird Archeological Park, a Paleo-Indian complex near Front Royal, Virginia. First session begins June 23 - July 11; second session begins July 14 - August 1. To register write to: Continuing Education, Box 75, McMahon Hall, Washington, D.C. 20064.

The Pamunkey Project is a 10 week field school (June 9 - August 15) in living archeology sponsored by Catholic University and the Pamunkey Indian Nation. The project involves the construction of a full scale pre-Columbian Powhatan Indian village of several long-houses, using primitive tools and technologies. To receive more information or an application form, write to Continuing Education, Box 75, McMahon Hall, Catholic University, Washington, D.C. 20064.

Fairfax County Public Schools sponsors a six week historic archeology summer field school program for high school students. The field school will operate from June 25 - August 6; deadline for application is June 2. For information write: Dr. Frank Taylor, 6131 Willston Dr., Falls Church, Virginia 28044, or

call 536-2030, ext. 220. Non-residents of Fairfax County can apply at the nearest Fairfax County High School.

George Washington University sponsors two four-week field sessions in historical archeology in Alexandria, Virginia in cooperation with the Alexandria Archaeology Project. The field sessions (June 16 - July 11; July 16 - August 12) will focus on the excavation of 18th and 19th century Afro-American residential sites. Instruction in field techniques and laboratory analysis will be complemented with seminars on the history of Alexandria and its urban development. In addition, optional lectures and other course work will be available during the summer on the G.W.U. campus; topics covering vernacular architecture, oral history, urban history, historic preservation, and material culture. For further information and application form write to Pam Cressey, Director, Alexandria Archaeological Research Center, City Hall, Alexandria, Virginia 22313.

George Washington University: Summer Field Program in Mesoamerican Archaeology and History, in its seventh season, is "designed to examine ancient and modern Mexican culture from an interdisciplinary perspective and to explore the relationships between ecology, art, architecture, and sociopolitical systems." Lectures and discussions will be held on the archaeological and historical sites. Students will have the opportunity to focus on research topics in their area of interest. The session will be held from June 12 - July 10. For further information and application form, write to Professor Robert L. Humphrey, Department of Anthropology, George Washington University, Washington, D.C. 20052, or call 676-6075.

(continued page 9)



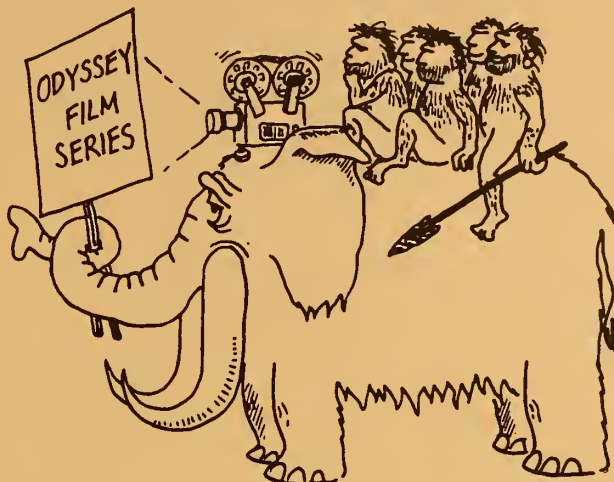
# odyssey

# odyssey

## ODYSSEY SCHEDULE

May 11: Ongka's Big Moka  
May 18: Other People's  
Garbage\*  
May 25: Masai Women  
June 1: The Chaco Legacy\*  
June 8: Cree Hunters of  
Mistassini  
June 15: Key to Land of  
Silence  
June 22: The Sakuddei

ODYSSEY programs will be shown on public television, Sundays, 8 p.m. EST. Check your local listings.



ODYSSEY, a new 12-week television series on anthropology began April 6, 1980. Michael Ambrosino, creator of the highly acclaimed NOVA science series, produced ODYSSEY.

A teacher's guide to six of the programs was written by Alison S. Brooks, Ruth O. Selig, and JoAnne Lanouette. It was published as an insert to the March 1980 issue of Social Education. The guide includes film synopses, background information, questions for watching the films, and bibliographies. Public Broadcasting Associates has distributed an additional 8,000 copies of the guide to junior college and high school anthropology faculty and museum educators. For further information, call Laurie Manny, Public Broadcasting Associates, Inc., (617) 783-7008.

The following class discussion questions and further activities supplement the material in the guide. They are designed for use after each film is viewed by a class of students. Class discussion questions and further

activities for four ODYSSEY films ("Seeking the First Americans", "N!ai, the Story of a !Kung Woman", "Franz Boas", and "The Incas") were included in the last issue of AnthroNotes, Winter 1980.

In this issue, class discussion questions and further activities for "Other People's Garbage" (May 18) and "The Chaco Legacy" (June 1) are provided.

## \* \* OTHER PEOPLE'S GARBAGE \* \*

### Discussion Questions:

1. What were your reactions to this film? Which of the three sites would you enjoy working at and why? What ideas tie the film's three segments together? Why do you think the filmmaker called this "Other People's Garbage?" What are some of the goals, techniques, and approaches which help define historical archeology as different from both history and traditional archeology?

2. Why does Deetz excavate in an area from which he also has written records? What does Deetz mean by recapturing the "texture of life" in Sommerville? Why is he wanting to uncover "ordinary people's lives", and correct the elitist bias of many history books?

3. Why is it so difficult for Deetz to establish the location of the major hotel in Sommerville? How reliable did the memories of survivors or descendents seem in Sommerville and in San Simeon? What kinds of information do people seem to remember the best?

4. In the St. Simon's Island segment, what is the evidence which Fairbanks finds to indicate that slave cabins had dirt floors, that slaves used guns, that slaves were supplementing their diet by trapping and fishing, that slaves were hunting at night, and that some slaves might have been writing? Why would this evidence help correct previously held popular misconceptions about black plantation life?

5. A recently passed law (Archeological and Historic Preservation Act of 1974- p.l. 93-291) requires that construction projects utilizing federal monies spend up to 1% of the project money for investigating, salvaging or preserving cultural resources disturbed by the project. Last year over 75 million dollars was spent on conservation archeology under this law. Do you think the money should be allocated in this way? Why or why not? Imagine you are going before a congressional committee considering striking this law from the books. Argue your case before the committee -- as a private citizen, the head of a construction company, and/or the president of the National Trust for Historic Preservation.

6. What is an "undisturbed site"? Why is it so rare to find an "undisturbed site" in an urban environment? How did each of the following help the archeologist pinpoint the date of the Harvard Yard Site to between 1650 and 1674: an English coin, clay pipestems, pieces of pottery, and pieces of jugs.

7. In the 19th century, cities grew as transportation systems developed. Why would this be true? How does the third segment of the film help explain the "growth and democratization of the greater Boston area" in the 19th century? What evidence of this growth can the archeologist find? In the 20th century, why are mass transit systems continuing to grow? Why would the archeologist want to excavate in the areas where construction is planned?

## Further Activities:

1. Have students draw detailed maps of their school or a section of their school and the immediate vicinity. Then post the students' maps around the classroom and compare them. What is the same? What are the differences? What accounts for the variations? What information would come from excavating the site of a school that usually does not come from people's memories?

2. Ask students to draw a plan of their house or part of their house from memory. Have each student 'correct' his/her drawing at home, using a different color ink. Next, each should find the oldest person who has lived in the house and ask how the plan of the house has changed. In the archives, or titles and record section at the local government building, students can also research information about their houses' construction and design as well as



# odyssey

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details of previous structures or land-uses of the house site.

3. Divide the class into two groups. Each group digs a pit, arranges objects in the pit, records the arrangement of objects and fills in the pit. Then each group excavates the others' pit and writes an archaeological site report. How close are the reports to the original arrangement?

4. Take your class to a graveyard. How old are the oldest gravestones? What can be deduced from gravestones about the community: its size and ethnic composition, the average life-span through time, family size, economic and social differences within the community? Students can make rubbings or photographs, and do research on gravestone design, symbolism and change through time. (For article on graveyard study write, Ann Bay, ART TO ZOO, Office of Elementary and Secondary Education, A&I 1163, Smithsonian Institution, Washington, D.C. 20560.)

## \* \* THE CHACO LEGACY \* \*

### Discussion Questions:

1. Were the students surprised to see these majestic ruins in the southwestern desert?
2. What are the characteristics of Chaco settlement which identify it as a civilization? Does this list change students' views of North American Indian cultures? Are there important characteristics of civilization in general that were lacking in Chacoan life?
3. How did the settlements on the South side of the canyon differ from the settlements on the North side? How does Gwinn Vivien connect these differences to the geology and utili-

zation of water on each side of the canyon?

4. What were the kivas? Why were they underground? How were they like European cathedrals? How do we know how they were used? Why are they referred to as the "social glue" essential to the success of the Chaco people? Would we still be able to guess at the function of these structures if their smaller Pueblo Indian counterparts did not exist? Why or why not?

5. What is the major function of writing? Why is it important to have writing in a society which is engaged in extensive trading? How might writing have helped the Chacoans cope with their new challenge?

6. What are the lessons of the fall of Chacoan civilization? Do our public authorities plan for the distant future? What kinds of potential catastrophes do we ignore when we build cities and major structures on the San Andreas fault, the coastal barrier islands of the southeast, the arid southwest, the low-lying floodplain of the Mississippi and other rivers? What are the probable consequences of these building patterns? Why do we ignore them? Who profits most from the present situation? Who loses? Should we change our settlement and land use policies? How?

### Further Activities:

1. Have each student select a major city in the United States and with a map examine the settlement patterns related to the city. Are there suburbs and/or outliers? Are there any differences between the suburbs and outliers? What are the economic, political, social, and educational relationships between the city and both its suburbs and outliers?

2. Ask each student to find a large tree stump or a recently sawn cross-cut section of a tree. Then have the student put a pin in the center of the stump or section and count the number of annual rings from the center to the outside. How old was the tree when it was cut down? Are there any variations in the size of the rings? What educated guesses can the students make about climatic variation during the life of the tree?

3. Have students construct a graph of the yearly amount of rainfall in their area during the last 20-40 years. The National Climatic Center, Federal Bldg., Asheville, North Carolina 28801 (Tel. 704-258-2850, ext. 683) will supply available records on over 2,000 localities for a nominal charge. What patterns exist? Given the major agricultural products of the students' state or area, how would the local economy be affected by major shifts in rainfall? Students might interview local farmers, ranchers, or food wholesalers about the actual effects of the swings noted in their graphs, at least for the recent past.

4. Have students obtain satellite pictures taken of their local area by writing to: The National Cartographic Information Center, 507 National Center, Reston, Virginia 22092, Tel. 703-860-6045 (Fee of \$8.00 for a 7.3" square black and white photo). What can they see in the pictures? What can't they see? What, if anything, can they tell about settlement patterns in their area? What human modifications of the landscape are visible in these pictures? What man-made structures?

5. Group leadership exercise. The object is to demonstrate that in any group confronted with a problem to solve as a group, leaders emerge and tell the rest of the group what to do. If leadership is assigned ahead of time,

the task may be accomplished even more efficiently if the leaders are well chosen. Day One: Give the class a construction project or other problem to solve as a group. Day Two: Assign a second and similar problem but assign leadership roles. Ask one student to take notes throughout both days on the process of group problem solving and, in particular, the emergence of leadership. Throughout, the teacher should remain uninvolved and the class should be unaware of the note-taker's exact instructions. Day Three: Compare the differences between the way decisions were made, the people who were most influential in solving the problems, and the efficiency of the group on the two days.

6. Have students construct pots using the coil method and the pottery wheel. What are the similarities and differences in the final product?

7. Have students make a three dimensional model of Chaco Canyon especially noting the places of archaeological interest.

8. Divide your class into four groups and give one group two quarters, the next two dimes, the third two nickels, and the fourth, two pennies. Tell the students to imagine they are archaeologists in the year 3980 A.D. who have just discovered coins from an unknown civilization. Have each group write a description of this civilization based solely on the coin's evidence of technological, cultural, social, political, religious and economic life and geographical situation. Compare the group's conclusions.



(Summer Opportunities continued  
from page 4.)

Field Methods in Primatology will be taught by Geza Teleki from July 16 - August 20 at a site in West Virginia. The course will focus on field methods and techniques used by primatologists to describe and evaluate all basic environmental features to be measured and mapped in the early stages of a primatological field study. To apply, write to the Division of University and Summer Students, Rice Hall, 2121 I St., N.W., Washington, D.C. 20052.

University of Maryland, in cooperation with St. Mary's College in Maryland and St. Mary's City Commission, is offering a six week archeology field school session from May 27 - July 4. The session entails three weeks excavating a 17th century colonial house site and three weeks surveying prehistoric and historic sites in St. Mary's River Valley. The session may be taken without credit. For further information call Jeffrey Quilter at 454-4154.

Caesarea, Israel is the location of a large planned city built at the time of Herod and continuously occupied until the 20th century. The University of Maryland is sponsoring a summer field school session from May 24 - June 26 to uncover the overlying Islamic and crusader cemeteries. Basic knowledge of human osteology is required to apply. For further information call Ann Palkovich 454-6970.

Native American Studies Program sponsored by Northwestern Archeological Program and Foundation for Illinois Archeology, is an integration of archaeology and ethnology to further the understanding of past cultures. The program is designed for museum staff,

elementary and high school teachers, and students of Native American culture and history. Four different workshops will be held over the summer to include Native American technology, ceramic, textile, and basketry traditions, arts and cultures, and lithics. A certificate of completion will be awarded to participants. Living accommodations are available at the Kampsville Archeological Center where the workshops will be held. For further information write to Ellen Gantner, Director, Special Programs, P.O. Box 1499, Evanston, Illinois 60204.

Smithsonian Institution - Office of Elementary and Secondary Education offers free summer workshops for teachers including workshops on techniques for teaching in the museum and in the classroom. A new workshop in architecture in Washington, 1790 - present, will be offered. For information call Thomas Lowderbaugh 381-6471.

The Smithsonian's Office of Education offers an opportunity for high school students to expand their interest in natural history by giving Highlight Tours of the museum to visitors, helping as museum aids, and creating puppet shows. For an application call 381-6212, or write to Ms. Rebecca Mead, Office of Education, Room 212, Natural History Museum, Smithsonian Institution, Washington, D.C. 20560.

American Anthropological Association has available a listing of summer opportunities in all areas of anthropology. To obtain this listings, send \$2.50 to AAA Summer Field School List, 1703 New Hampshire Ave., N.W., Washington, D.C. 20009.

ANTHROPOLOGICAL MATERIALS AVAILABLE FROM THE SMITHSONIAN INSTITUTION

SMITHSONIAN INSTITUTION PRESS

P.O. Box 1579

Washington, D.C. 20013

Classics of Smithsonian Anthropology

(A new paperback reprint series)

Calendar History of the Kiowa

Indians. James Mooney (\$7.95).

(1st published in the 17th Annual Report of the Bureau of American Ethnology in 1898.) 1979.

Indians of the Southeastern United

States. John R. Swanton (\$17.50).

(1st published as B.A.E. Bulletin 137, 1946.) 1979.

Other Publications:

Historical Sketch of the Cherokee.

James Mooney (paper \$4.95).

(Reprinted from Mooney's Myths of the Cherokee, B.A.E. 19th Annual Report, 1900.) 1975.

The Cherokee Nation of Indians.

Charles Royce (paper \$4.95).

(Reprinted from B.A.E. 5th Annual Report, 1887.) 1975.

The Indian Tribes of North America.

John R. Swanton (\$27.50).

(1st published as B.A.E. Bulletin 145, 1952.) 1979.

The Indians of Texas in 1830.

Jean Louis Berlandier. Editor,

John C. Ewers (\$15.00). Translated by Patricia Reading Leclercq, 1969.

Catalogue of Fossil Hominids.

K.P. Oakley, B.G. Campbell, and T.I. Molleson, eds. Published in 3 parts: Part I: Africa (paper \$27.50); Part II: Europe (paper \$42.50); and Part III: Americas,

Asia, and Australasia (paper \$30.00). Set \$87.50. 1980.

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HANDBOOK OF NORTH AMERICAN INDIANS.

William C. Sturtevant, General Editor.

An encyclopedia summarizing knowledge about all Native peoples north of Mesoamerica, including human biology, prehistory, ethnology, linguistics, and history. One to three volumes will appear each year until the 20 volume set is completed. Volume 15: Northeast (\$14.50), Volume 8: California (\$13.50), and Volume 9: Southwest (\$17.00) are now available from the S.I. Press, P.O. Box 1579, Washington, D.C. 20013. Prepaid orders will not be charged for postage and handling.

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OFFICE OF PHOTOGRAPHIC SERVICES

Smithsonian Institution

Washington, D.C. 20560

(catalogs available)

Smithsonian Slide Sets and Filmstrips:

The Ghost Dance Tragedy at Wounded Knee (\$36.00); The Battle of the Little Bighorn (\$36.00); slides only, Bhutan -- Land of Dragons (\$42.00) and George Catlin (\$36.60).

Slides of Exhibits in the Hall of Native Peoples of the Americas in the Museum of Natural History (slides \$1.00 each).

Photographs of Exhibits of the Native Peoples of the Americas in the Museum of Natural History (each 8 x 10" black & white, \$3.50).

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NATIONAL ANTHROPOLOGICAL ARCHIVES  
National Museum of Natural History  
Washington, D.C. 20560

The National Anthropological Archives, organized in 1965 as part of the Smithsonian's Department of Anthropology in the National Museum of Natural History, is the successor of the archives of the former Bureau of American Ethnology. Its purpose is to serve as a depository for the records of the Department of Anthropology and its predecessor organizations and to collect private papers relating to all cultures of the world and to the history of anthropology.

The Manuscript Collection dates from about 1848 to the present and includes some 40,000 individual manuscript items described under about 5,000 main items in an indexed card catalog. The Catalog to Manuscripts at the National Anthropological Archives, 4 vols., 1975, has been published by G.K. Hall and Co., 70 Lincoln St., Boston, Mass. 02111.

The photographic holdings of the National Anthropological Archives are estimated at 90,000 items, and most are dated between 1860 and 1930. A general file of black-and-white prints relating to the North American Indians includes portraits of individuals and of groups as well as pictures illustrating dwellings, costumes, domestic activities, industries, and other arts. Other photographic series include a similar large file that relates to non-Indian cultures and several collections that pertain to the work of specific anthropologists and other individuals. Two available listings of frequently requested photographs are: Selected Portraits of Prominent American Indians; and Selected Photographs Illustrating North American Indian Life.

The Archives are open for research from 9:00 a.m. to 5:00 p.m., Monday through Friday, national holidays excepted.

OFFICE OF INFORMATION  
DEPARTMENT OF ANTHROPOLOGY  
Smithsonian Institution  
Washington, D.C. 20560

Guide to Field Collecting of Ethnographic Specimens. William C. Sturtevant. 2nd ed. (Smithsonian Information Leaflet 503.) (\$1.00 per copy) 1977.

Selected Leaflets and Bibliographies:

Resource Packets:

Local Archeology; North American Indians (Teacher's Packet).

Information Leaflets:

Smithsonian Publications; Careers and Training in Anthropology; Archeology (includes career and fieldwork opportunities); Smithsonian Programs; Genealogical Research; Origin of the American Indian; American Indian Languages; Linguistic Interpretations of North American Indian Words; Indian Names for Popular Use; Anthropological Teaching Resources.

Bibliographies:

Selected References on the Indians of Virginia, the District of Columbia, and Maryland; Selected References on Archeology of Mesoamerica, Central America, and South America; Selected References on Arctic and Sub-Arctic Ethnology and Archeology; Selected References on Physical Anthropology (excluding Human Evolution); Selected Readings on Human Evolution; Selected Readings on Ancient Egypt.

ANTHRO•NOTES is part of The Anthropology for Teachers Program. This program is funded by the National Science Foundation and administered by the Anthropology Departments of George Washington University and the Smithsonian Institution. Program Staff: Dr. Alison S. Brooks, Director; JoAnne Lanouette; Ruth O. Selig; and Dr. R. Kepler Lewis. If you want information about the program or your name added to the mailing list, write: Ann Kaupp, Department of Anthropology, National Museum of Natural History, Stop 112, Smithsonian Institution, Washington, D.C. 20560.

ANTHRO•NOTES Staff: Ann Kaupp, JoAnne Lanouette, Ruth O. Selig, editors;  
Dr. Robert Humphrey, artist.



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# anthro•notes

a newsletter for teachers

vol. 2 no. 3

fall 1980

## A.A.A. MEETINGS IN WASHINGTON:

### TEACHERS INVITED!

SATURDAY-SUNDAY, December 6-7.

Mark the dates on your calendar!

The American Anthropological Association's (A.A.A.) Annual Meetings take place at the Washington Hilton Hotel (at Connecticut and Florida Avenues, N.W.) from December 4-7, 1980. Teachers are invited to attend weekend sessions and browse through the large anthropology book displays set up in the hotel.

For those unfamiliar with this event, a Nacirema member of the A.A.A. has provided the following account:

Anthropologists, like many members of small societies, engage in annual rites of renewal which they call "THE MEETINGS." Each year "THE MEETINGS" take place in a different city the week following the rites of harvest and pilgrim thanks. Through five days and five nights members of the society gather, and gather, and gather -- to greet old friends, make new friends, drink, listen to scores of FORMAL PAPERS, eat at numerous ROUND-TABLES, attend MINISESSIONS, and SOCIETY MEETINGS. Publishers of books dealing with the esoteric subject matter of "THE MEETINGS" also gather to show their wares

to the anthropologists who might assign such sacred books to their young initiates who come to special classrooms to learn about the subject of anthropology.

The A.A.A. is interested in having pre-college teachers attend the meetings, and has specifically scheduled events of interest to teachers on Saturday and Sunday. Saturday morning, from 9:00 a.m.-12 p.m., if you come to the Lincoln West Conference Room at the Hilton, you will find a symposium "TEACHING ANTHROPOLOGY TO STUDENTS AND TEACHERS: REACHING A WIDER AUDIENCE." This session, organized by the Anthropology for Teachers staff, under the auspices of the Council on Anthropology and Education, will report on the history and status of anthropology in secondary schools, describe two teacher training programs in an urban and a rural setting, and present case studies of innovative teaching by high school and college teachers, including Richard Abell from Montgomery County's Walt Whitman High School.

On Saturday afternoon, also in Lincoln West, there will be a symposium on the Anthropology of Learning featuring the well-known primatologist Frank E. Poirier speaking on "Nonhuman Primate Learning", and George and Louise Spindler talking on "Learning Theory Models -- Who Needs Them?" Emphasis on this panel will be on learning in natural settings, as well as learning in schools.

(over)

Other Saturday afternoon sessions include: "Who and What is an American Indian?"; "Widowhood in Africa"; "Modernization and Traditional Healing Practices"; "Primate Reproductive Strategies"; and "History and Theory of Anthropological Methods." Sunday morning sessions include: "Stress and Mental Health"; "Changing Roles"; "Women and Men in Schools and Society"; "Archeology in the United States"; and "Childhood and Adolescence." A copy of the meeting schedule, giving times and places of each session, will be available in the Lincoln West Conference Room Saturday morning.

\* \* \* \* \*

#### "ODYSSEY" FILMS -- FREE LOAN!

Last Spring many of our readers watched the PBS Sunday evening series, ODYSSEY. Five of the ODYSSEY programs are now available on videotape cassettes from the Naturalist Center at the National Museum of Natural History. (These same five videotapes are also available through some county and college media centers; for example, in Montgomery County and the George Washington University.) Videotape cassettes, 3/4", along with the EDUCATOR'S GUIDE TO ODYSSEY, may be borrowed free of charge by any teacher wishing to show the films to a class. The Naturalist Center has a videotape viewer and the films may be previewed.

The five films, with brief descriptions from the ODYSSEY GUIDE, are:

The First Americans: "Archeologists from Texas to Alaska search for clues to the identity of the first people to tread the American continent - the early hunters who between

11,000 and 50,000 years ago crossed the Bering Strait in pursuit of game."

Franz Boas: "Studying the Indians on the northwest coast of America was an odd career for a young German physicist in the late 19th century. But by virtue of his fieldwork with the Kwakiutl, his involvement with museums, his teachings, and his theories on race, Franz Boas was singularly responsible for shaping the course of anthropology in America."

The Incas: "In just 100 years the Incas created an empire that stretched more than 350,000 square miles across some of the world's highest mountains. Three archeologists trace the extensive network of roads, towns, and agricultural regions responsible for the prosperity of these 16-century Peruvians."

Other People's Garbage: "Although written documents recount more than 350 years of events in America, they reveal little about what day-to-day life was like. Historical archeologists at three sites across the United States are uncovering a clearer, and often very different, story of the recent past than we've ever known."

The Chaco Legacy: "Over 900 years ago the inhabitants of Chaco Canyon, New Mexico, undertook one of the most comprehensive building projects ever -- an extensive water-control system, a network of roads connecting 70 pueblos, and several mammoth structures such as the 800-room Pueblo Bonito. How and why these people developed such a sophisticated technology is only now becoming clear after 50 years of study."

(cont. p. 6)



## TEACHERS' CORNER:

### ARCHEOLOGY AT OUR DOORSTEP

High school students sometimes have unexpected archeological opportunities dumped on them. Last spring, Walt Whitman and Bethesda-Chevy Chase high school students found themselves with 500 dump truck loads of C&O Canal dredgings to explore for artifacts, which had been dropped, tossed, or lost in the canal since its construction in the 19th century.

Within a few hours, twenty-five students from the two Montgomery County schools recovered 2,000 bottles, an 1832 Liberty penny, Civil War munitions, old auto license tags, pre-Civil War China plates with featherware design, a small derringer, an old freight wagon wheel, clay marbles, a dismantled slot machine, and many other artifacts. All these materials came from a landfill in Prince George's County where dredgings from the Georgetown end of the C&O Canal had been taken.

Jill Timmons, an archeology student at Whitman, describes how the discovery was made.

"The story begins on a cold January afternoon in Georgetown. An anthropology student from the University of South Carolina, Mark Tennyson, was walking along the canal when he noticed that a section between 29th Street and Key Bridge had been drained and the silt dug out. His curiosity as to the value of the artifacts which might be found in the silt led him to phone the Park Service for information on the dredging. He discovered that the Park Service ... had let about 16,000 cubic yards of silt and other materials be dredged from the canal and trucked to a dumping site near Andrews Air Force Base. Tennyson was



told by the chief of historic resources for the region that 'silt is not part of the Canal and is not desired. We do not consider artifacts put into the Canal relevant to the operating period of the Canal for which we are responsible'."

Tennyson reported his findings to his former anthropology teacher, Richard Abell, at Walt Whitman High School. Arrangements were made for Abell's archeology classes to recover materials at the landfill.

On a mild February day, twenty-five students spent five hours making surface collections as well as excavations of a few dump truck loads to ascertain whether, if, by chance, any evidence of stratification could be found (none was found). Huge quantities of muddy artifacts were gathered and bagged for return to school. The remainder of the afternoon was spent at school, washing bottles and artifacts.

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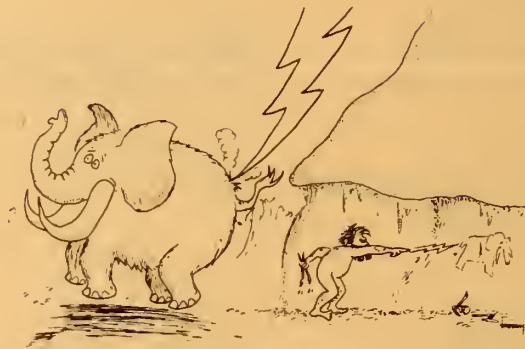
Students spent many weekends, as well as class sessions, cleaning the materials, cataloguing them and preparing type collections of the bottles. Dr. Chris Goodwin, a Research Fellow at the Smithsonian Institution, provided valuable assistance in this process. Four type collections have been sent to museums and one has been retained at Walt Whitman High School.

For archeology students the experience provided them with opportunities to collect and clean materials, catalogue and categorize them. An important lesson in historic preservation was learned as well as new insight into the past history of the community. In addition, students now are preparing a display of selected materials giving them an opportunity to learn museum techniques.

What did the project mean to the students? Their enthusiastic participation, even in sometimes dirty, boring work made it clear that this experience was significant to them. "The artifacts," says Jill Timmons, "are evidence of the life style of the common folk who used the canal in the 1800's."

Jack Albert, another student, commented, "Anyone can read out of books about the lives of past people, but to be able to dig up facts, hold them in your hands and see them before your eyes is more learning than can be done through hours in a classroom. Maybe only half the bottles, coins, wagon wheels, and china will be valuable for the museums, but it is valuable as a learning experience to us."

Richard Abell



#### PREHISTORIC ART REPRODUCTIONS

The Gallery of Prehistoric Art (33 Union Sq. West, 2nd floor, New York, New York 10003) has available teaching materials and fine silk-screen prints of cave and rock art of Europe, North America, and Africa by artist and director of the gallery, Douglas Mazonowicz. Available to schools and museums are: a 12 minute documentary film,

"Voices from the Stone Age"; a cassette slide/lecture presentation on cave paintings of France and Spain; and photographs and transparencies (color and b/w) of prehistoric cave and rock art. Mr. Mazonowicz also has a booklet, On the Rocks: The Story of Prehistoric Art, available for \$3.50 from the Smithsonian Institution Traveling Exhibition Service, Arts and Industries Bldg, Room 2170, 900 Jefferson Dr., S.W., Washington, D.C. 20560.



## ARCHEOLOGY AND STUDENTS -- CAN THEY MIX?

The professional archeological community has often cast a jaundiced eye on the use of archeological sites for the purpose of high school education. Some educators view student excursions into such activities as embellishments or "frills" --- not as a potentially vital part of the total educational program of a system. Two questions arise: (1) Can archeology do anything for kids?; and (2) Can kids do anything for archeology?

We interviewed some former students from the Summer Seminar in Archeology, now entering their third year of volunteer work with the Fairfax County Archaeological Survey. Their answer to the first question was a resounding "Yes!" To begin with, they maintain, their grasp of both content and basic skills has been substantially strengthened. They have learned much about United States history, especially local history (our primary focus in Fairfax has been on historical archeology). They have gained some expertise in the identification of material culture forms ranging from architecture to farm tools and military equipment. Since archeology is essentially a research process, their skills in gathering, analyzing, and classifying data, and drawing inferences from it, have also received a very thorough toning. Moreover, the application of these and other skills has been transferred to a variety of other academic areas.

Students have gained personal dividends from participating in the field experience. Their perspectives have been broadened, and they have gained a new awareness of, and appreciation for, their environment, both physical and

and cultural. Because our summer seminars in Fairfax draw participants from all high schools in the county, the students have acquired a new circle of friends --- ones with whom they now share a unique set of experiences. These same students also remark that they never realized how much physical stamina they possessed until they endured the consistent 90°+ of a Virginia summer, chopping weeds and hauling dirt -- and survived! All agree that they have become more self-disciplined and observant. Above all, they feel they have made a lasting, worthwhile contribution to their community.

Have they? Enter the professional archeologist.

High school volunteers have proven invaluable to the Fairfax County Archaeological Survey. Their laboratory and field work is equivalent to work done by the graduate and undergraduate students who traditionally comprise most archeology crews. Without their volunteer contributions, much of the archeological work accomplished in Fairfax County would be impossible.

The integration of the high school volunteers into the major projects undertaken in the county and the quality of their field supervisors have had the greatest impact on the success of the high school program. Students have not been relegated to performing boring, trivial, or makework tasks. No special projects have been created for them. For example, students were fully involved in the testing program undertaken at E.C. Lawrence Park, the major research project conducted last summer. Students are a vital part of the Fairfax County Archaeological Survey and have been treated as such.

(over)

Two high school teachers give students direct supervision in the field. These supervisors have taken the time and expended the energies to attend formal training sessions in archeology. They have kept up with the discipline through reading, additional classwork, and convention attendance. The combination of their academic training, and their infectious enthusiasm for the discipline helps the students both educationally and personally.

Archeology is not, of course for everyone. We do not seek to

turn out professional archeologists. But we have found that virtually every student, whether liking or disliking the total experience in retrospect, has gained from the experience.

Martha Williams  
Teacher  
Marshall High School  
Fairfax County Public Schools

Edward R. Chatelain  
Historical Archeologist  
Fairfax County Office of  
Comprehensive Planning



### CONTRIBUTIONS!

One purpose of Anthro•Notes is to share new ideas and materials for teaching anthropology, and to inform teachers and anthropologists alike of the resources available to them in the D.C. metropolitan area. We welcome your suggestions of new books, films, curricula materials, and classroom activities for teaching anthropology or integrating it into science and social studies classes. Teachers have been important contributors to Anthro•Notes, and we would like to encourage and continue this communication by hearing from you.

### ODYSSEY (cont'd from p.2)

To borrow a tape, first check if it is available by calling the Naturalist Center during Center hours (Wed.-Sat., 10-4; Sunday, 12-5) at 357-2804. If available, the tape may be borrowed for one week only. When picking up the tape a deposit (a check for \$50 made out to the Smithsonian Institution) will be left with the Center's manager. On the back of the

check write the borrower's name, address, telephone number, and the name of the film. When the tape is brought back the check will be returned. The EDUCATOR'S GUIDE TO ODYSSEY may also be borrowed.

IT IS PERMISSIBLE TO TAPE THESE VIDEOTAPE CASSETTES. ANY MEDIA CENTER MAY BORROW THE CASSETTES AND MAKE THEIR OWN SET TO DISTRIBUTE THROUGH THEIR SCHOOL DISTRICT.



## UPCOMING EVENTS

Nov. 18: "Ethnoarchaeology" by Dr. Alison S. Brooks (George Washington University). Discussion takes place in the Archaeology Laboratory at Marist Hall, The Catholic University of America, at 7:30 p.m. For further information and schedule of future talks, call April Fehr, 635-5080.

Nov. 19: "What We Can and Cannot Learn About Human Evolution" by Dr. Alan Walker (Johns Hopkins University). Anthropological Society of Washington meeting at 8:15 p.m. in the Naturalist Center, Museum of Natural History.

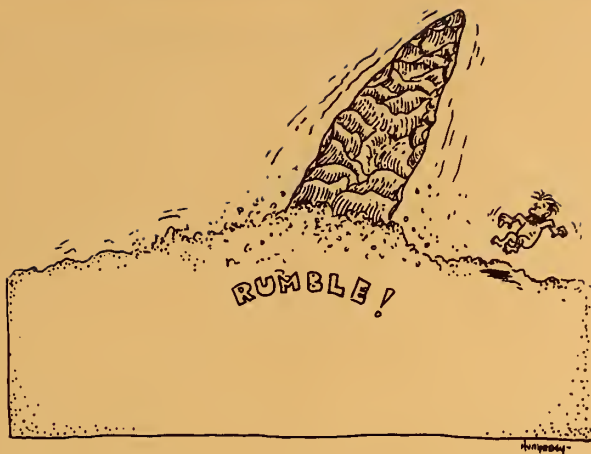
Nov. 25: "Report on Work in the Savannah River Drainage, Georgia" by Dr. William M. Gardner and staff. See Nov. 18.

Dec. 4: "Investigations Into the Prehistory of the Eastern Shore" by Timothy Thompson (Catholic University). Seminar takes place at The Alexandria Archaeological Research Museum located on the 2nd floor of the Torpedo Factory on Union St., Old Town Alexandria, at 8 p.m.

Dec. 4-7: American Anthropological Association meetings. The Washington Hilton Hotel. (see p.1)

Dec. 14: "Reuniting the Teeth with the Body -- An Incisive Study of Dental Pathology" by Dr. Lucille St. Hoyme (Smithsonian Institution). Lecture takes place in the Naturalist Center at the National Museum of Natural History, Sunday at 2:30 p.m.

Dec. 16: "Westvikings: Colonization and Contact in North America". Anthropologists and archeologists present



talks at this all-day symposium at the Museum of History and Technology. For ticket information call the Smithsonian Institution Resident Associate Program Office, 357-2196.

## KWANZAA CELEBRATIONS

December 26 begins a week of Kwanzaa, Black-American adaptations of African Harvest Festivals. Kwanzaa, a Swahili word meaning "first", signifies the first fruits of the harvest. The Museum of African Art will commemorate this festive occasion with a program of performances including music and storytelling. For a schedule of activities contact the Public Relations Department in mid-December at 287-3490. To prepare students for an understanding of Kwanzaa, the Anacostia Neighborhood Museum loans (free of charge for classroom use) a Kwanzaa kit, including a teacher's manual, audio-visual materials, posters, and a cookbook. For further information call the Museum's Education Department, 287-3369.

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ANTHRO•NOTES STAFF: Ann Kaupp, JoAnne Lanouette, Ruth O. Selig, editors;  
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# anthro•notes

a newsletter for teachers



vol. 3 no. 1

winter 1981

## TEACHERS ATTEND 1980 A.A.A. MEETINGS

"The students we teach in high school are at a stage where they are particularly idealistic, where 'it is the ideological potential of a society which speaks most clearly to the adolescent who is so eager to be inspired by worthwhile ways of life.' (Erik Erickson, Identity, Youth and Crisis, p. 30.) In a world where the forces of human love and concern seem to be in precarious balance with the forces of fratricide and chaos, we teachers must 'bear personal witness to the reality of anthropology as a vital and potent contemporary path to meaningful existence.' (Anthropology Newsletter, November 1980, p. 4.) In this way we make our lives and our courses an inspiration to the young men and women we teach."

Richard Abell, "Teaching High School Anthropology"

For many teachers attending the American Anthropological Association symposium, "Teaching Anthropology to Teachers and Students: Reaching a Wider Audience", Dick Abell's eloquent description of his attempts to "neutralize student ethnocentrism" provided the highlight of the session, along with Beatrice Kleppner's films showing her high school students' fieldwork at Plymouth Plantation and Prudence Island. These two presentations were part of the symposium which over 80 area teachers and anthropologists attended on Saturday morning, December 6 at the Washington Hilton. Many teachers stayed through the day attending other sessions and browsing through book displays. One teacher, Paula deNobel, attended a particularly animated archeology session that was scheduled for three hours but moved to a nearby restaurant so that panelists could continue to "argue with one an-

other. What an opportunity to hear well-known anthropologists discuss their profession, all in a good humored if a bit heated way. I wouldn't have missed it for the world."

The morning symposium focused primarily on pre-collegiate anthropology. It included papers on the history, potential, and present status of pre-collegiate anthropology, and on teacher training programs in New York State and Washington, D.C. Four case studies were presented by teachers working in high school, college, and community center settings. Papers from the session will be edited and published through the Anthropology Curriculum Project at the University of Georgia. (Four papers in unedited form are available: Richard Abell's "Teaching High School Anthropology"; Ruth Selig's "Pre-Collegiate Anthropology: History and Potential"; JoAnne Lanouette and Alison S. Brooks'

"The Anthropology for Teachers Program"; and Patricia Higgins' "Getting Anthropology into the Secondary Social Studies Classroom." These can be obtained from Ann Kaupp, Department of Anthropology, Stop 112, Smithsonian Institution, Washington, D.C. 20560.

During the morning symposium on teaching anthropology, a distinguished British guest in the audience, Lady Firth (Sir Raymond Firth's wife) described efforts in Great Britain to encourage teacher education in anthropology. As in America, anthropology is not widely understood by teachers nor has there been strong support from professional anthropologists to encourage anthropology teaching in schools. Lady Firth, an anthropologist, a teacher of teachers, and a long time supporter of pre-collegiate anthropology, was most interested in learning about the situation in America and spent a day at the Smithsonian visiting the Anthropology Resource Center for Teachers.

Following the symposium, Committee 3 (Teaching Anthropology, Thomas Dynneson, Chair) of the Council of Anthropology and Education (C.A.E.) held a business meeting. The committee elected a new Chair (Selig) and a new Program Coordinator (Higgins) and agreed to sponsor a program at the 1981 Los Angeles meetings. Anyone interested in presenting a paper at the 1981 symposium "Innovative Teaching in Anthropology" please prepare abstracts on the standard forms (see

the November 1980 issue of Anthropology Newsletter) and send them to Professor Patricia Higgins, Committee 3 Program Coordinator, Department of Anthropology, SUNY, Plattsburgh, New York 12901 by March 1. The 1981 symposium will concern the teaching of anthropology at collegiate and pre-collegiate levels and in formal and non-formal educational settings. Interested practitioners in all these areas are invited to contact Prof. Higgins at 518-564-3003 to discuss possible presentations.

Finally, at the Council on Anthropology and Education Board of Directors meeting in December, the Board unanimously passed a resolution offered by Marion Rice, University of Georgia, supporting teacher education. Discussion followed concerning strategies to encourage more anthropology in the pre-service and in-service training of teachers. The resolution passed was stated as follows: "Be it resolved, that the Council on Anthropology and Education supports efforts to 1) improve the teaching of anthropological concepts and ideas in the schools, either in a course in anthropology or in other Social Studies courses, e.g., history, global education, cultural studies, and 2) encourages the inclusion of courses in anthropology in teacher education programs at all levels.

Anyone interested in working with Committee 3 towards the goals stated in this resolution, please contact Ruth Selig, Department of Anthropology, Smithsonian Institution, Washington, D.C. 20560; (202) 357-1592.





## ODYSSEY AIRS AGAIN!

Last spring's ODYSSEY series of anthropology/archeology films was so successful that Public Broadcasting Associates is showing the series again, January through March 1981. (See the schedule below.)

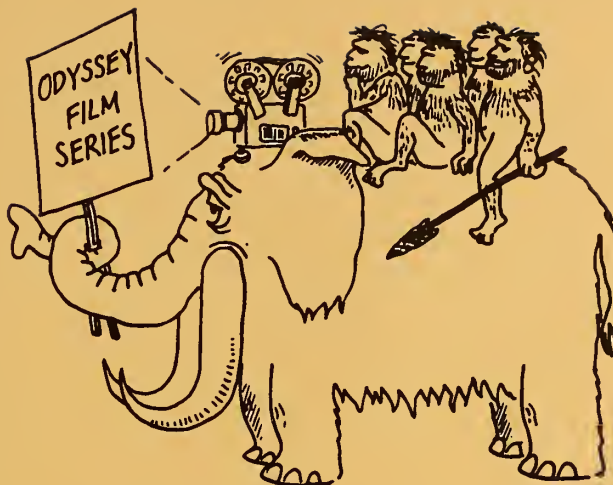
### ODYSSEY SCHEDULE

Feb. 14 (8 p.m.): Ongka's Big Moka  
 Feb. 21 (8 p.m.): Other People's  
                     Garbage  
 Feb. 28 (8 p.m.): Maasai Women  
 Mar. 12 (2 p.m.): The Chaco Legacy  
 Mar. 19 (2 p.m.): Cree Hunters of  
                     Mistassini  
 Mar. 26 (2 p.m.): Key to the Land of  
                     Silence  
 Mar. 28 (8 p.m.): The Sakuddei

This schedule is for WETA in the Washington, D.C. metropolitan area. The repeat schedule is the following Thursday at 2 p.m. ODYSSEY will be shown on public television, Saturdays, at 8 p.m. EST. However, check your local listings.

If you want to use ODYSSEY in your classroom, many resources are available. An EDUCATOR'S GUIDE TO ODYSSEY provides synopses, background information, discussion questions, and brief bibliographies for six films: "Seeking the First Americans," "N!ai, Story of a !Kung Woman," "Franz Boas," "The Inca Empire," "Other People's Garbage," and "The Chaco Legacy".

More discussion questions and further activities were published in ANTHRO·NOTES, vol. 1, no. 3 (Winter 1980), pp. 5-8, and vol. 2, no. 2 (Spring 1980), pp. 5-8. Copies of ANTHRO·NOTES are available without charge from Ann Kaupp, Department of Anthropology, Smithsonian Institution, Washington, D.C. 20560, (202-357-1592).



Five of the ODYSSEY programs along with the EDUCATOR'S GUIDE TO ODYSSEY can be borrowed free of charge on video tape cassettes, 3/4" and 1/2" from the Naturalist Center at the National Museum of Natural History. The Naturalist Center has a video tape viewer and the films may be previewed. Of the six films listed above, "N!ai, Story of a !Kung Woman" is not available. To borrow a cassette, first check if it is available by calling the Manager or Assistant Manager of the Naturalist Center during Center hours (Wed. - Sat., 10:30 - 4; Sunday, 12 - 5) at 357-2804. If available, the cassette may be borrowed for one week. When picking up the cassette a deposit (a check for \$50 made out to the Smithsonian Institution) will be left with the Center's Manager. On the back of the check write the borrower's name, address, telephone number, and the name of the film. When the cassette is brought back the check will be returned.

IT IS PERMISSIBLE TO COPY THESE VIDEO TAPE CASSETTES. ANY MEDIA CENTER MAY BORROW THE CASSETTES FREE OF CHARGE AND MAKE THEIR OWN SET TO DISTRIBUTE THROUGH THEIR SCHOOL DISTRICT!

## TEACHERS' CORNER: FIELDWORK IN THE CLASSROOM

Meeting other cultures, of course, is what Anthropology is all about. But how can an instructor, faced with shrinking field trip budgets, arrange for eager students to meet other cultures, and have a first-hand anthropological field experience -- without ever setting foot outside a classroom? To our surprise, at Marshall High School in Fairfax County, we found the answer only several doors down the corridor.

Like other schools in the Metro area, Marshall possesses a relatively large and diverse group of students from other cultures\*. In Fairfax these students are enrolled in "English as a Second Language" (ESL) classes. Eager to meet American students, the recent newcomers to our country also want opportunities to practice their English. My fifteen budding anthropologists were just as eager to attempt an anthropological "field" experience. Mutual needs coalesced into the project described below.

For the anthropology students, the project grew out of a generalized discussion on the universals and variations in human social organizations. Prior class discussions centered around the anthropological process of gathering data on other cultures using observation and interview/informant techniques.

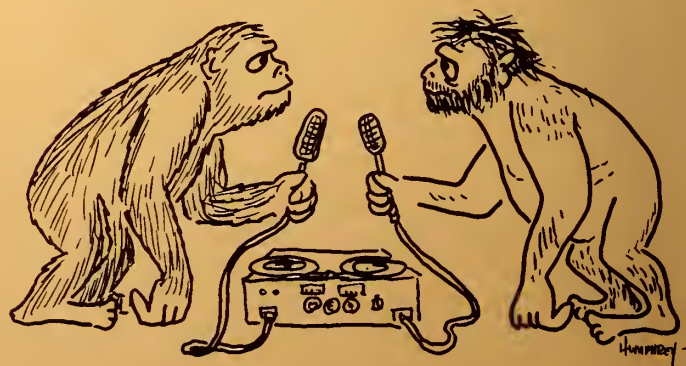
Students settled on four questions to use in the interview activity: (1) what are the groups or institutions which are important in your life (family, school, church, club, etc.)?; (2) what are the rules of behavior in each of these groups?; (3) how did you learn these rules?; and (4) rank the groups in the order of importance to you. Using these questions, members of the class analyzed their own

group memberships in American society, and recorded their observations on a data-retrieval sheet.

The class then "traveled" to meet the other cultures -- simply by taking a walk down the corridor. Each anthropology student was "chosen" by an ESL student through a numbered lottery. Such a procedure ensured that no one would be left out on either side and that one-on-one interviews could take place. During these interviews with their ESL partner, the anthropology students elicited information using their previously formulated questions. The interviews took two class periods, as the ESL students wanted to ask questions of the Americans as well -- a delightful development. Both class sessions proceeded with little or no further prompting from either of the teachers involved.

"Debriefing" the anthropology class was the next step. During this process, discussion centered on two major topics. The process of gathering information on another culture was explored, with particular emphasis on the problems involved, including the language barrier and the reticence of some members of the study group. Students discussed appropriate formats for presenting their anthropological research, including not only their final interpretations but also their research methods, and the evidence on which they based their interpretations. Debriefing concluded, students wrote brief papers concerning the social groups of two cultures.

(next page)





Over-all this type of interview activity could be used as an investigative tool for any facet of cultural anthropology. It stresses both the universals and the variables of the human condition in a non-judgmental fashion. It can easily be extended in scope by expanding the number of interviews, or by having students analyze case studies of non-industrial societies written by anthropologists. Through this project, anthropology becomes not merely a body of knowledge to be studied, but an active process of discovery. Content, research, and writing skills are all brought into play in a coordinated fashion.

Was the project worth the effort? I think the answer must be a qualified yes. From the standpoint of achieving content objectives, obviously two hours of interviewing one or two members of another "modern", technically advanced society will not produce the analytical observations of a Margaret Mead or Colin Turnbull. But far more valuable than the content achieved was student involvement in the research process itself -- the face-to-face encounter. And, perhaps best of all, the students enlarged their horizons and their circle of friends, an especially important side benefit for the ESL group, whose members sometimes feel isolated or submerged in a high school of sixteen hundred students.

We're already planning a return engagement!

\*The cultures represented included Korean, Vietnamese, Iranian, Turkish, Greek, Colombian, and Chinese. Absentees, incidentally, interviewed older members of their own family, with equally interesting results.

Martha Williams  
Marshall High School  
Fairfax County Public  
Schools

## Do You Know?

- that primatologist Geza Teleki has been instrumental in the establishment of the first national park in Sierra Leone, a major breakthrough for the protection of chimpanzees. There is a critical need for funds to ensure the protection of the wildlife, including endangered primates. Tax deductible contributions earmarked for this project can be sent to World Wildlife Fund, 1601 Connecticut Ave., N.W., Wash., D.C. 20009.
- that in the January issue of Natural History magazine, Valerie Geist discusses the disappearance of Neanderthals in her article, "Neanderthal the Hunter." Geist attributes the Neanderthals' demise to their adaptation as supercarnivores since they were more biologically than culturally adapted to the glacial environment.
- that the Bureau of Indian Affairs offers free a variety of booklets, leaflets, and bibliographies on North American Indians, including a listing of young pen pals. Write to the B.I.A., Public Information Office, 1951 Constitution Ave., N.W., Wash., D.C. 20245, or call (202) 343-7445.
- that the Library of Congress' Archive of Folksong has available recordings selected from their large collection of American folk music, including North American Indian music. Recordings of traditional music from other lands can also be purchased.
- that Alison Brooks, Director of the Anthropology for Teachers Program, gave birth to a baby boy on January 26.



- that the Washington Center of the Asia Society publishes a Calendar of Events including those sponsored by other related area organizations. Individuals interested in Asian art exhibitions, films, classes and lectures can write to the Asia Society's Washington Center, 1785 Massachusetts Ave., N.W., Wash., D.C. 20036, or call (202) 387-6500, to be placed on their mailing list.
- that the booklet, Human Bones and Archeology (Cultural Resource Management Studies) by Douglas H. Ubelaker, Smithsonian Institution, is available free of charge (as long as supplies last) from Ann Kaupp, Department of Anthropology, Smithsonian Institution, Wash., D.C. 20560.
- that Adena and Hopewell artifacts of prehistoric American Indian mound builders are on exhibit at the National Society Children of the American Revolution (1776 D St., N.W., Wash., D.C.) through April 1981.
- that teachers may subscribe to the free monthly publication, The Calumet Journal, which contains articles and resources about multicultural relations and education of particular interest to teachers with culturally diverse classes. To subscribe, write to Calumet, Canadian Council of Christians and Jews, 49 Front St. East, Toronto, Canada M5E 1B3.
- that four video tapes on lithic and bone technology are available free of charge by sending a compatible video tape to which the master can be transferred. For further information write to Mrs. Louise Estabrooks, c/o Archaeological Survey of Canada, National Museum of Man, National Museum of Canada, 30 Lisgar St., Ottawa, Canada K1A 0M8.
- that the Anthropology Resource Center for Teachers (in the Naturalist Center, Museum of Natural History) has a new collection of paperback books, including books on doing student fieldwork projects.
- that a group of young people in Northern Virginia have recently formed an organization called CHIMPS (Citizens Helping Innocent Monkeys and Primates Survive) and are associated with World Wildlife Fund. CHIMPS hopes to raise money for the national park in Sierra Leone.
- that the National Archives periodically holds excellent training sessions focusing on research and document analysis. The next four-day research seminar, titled "Going to the Source -- An Introduction to Research in Archives," is expected to be held in the Spring. For more information, contact: Education Division, National Archives, Washington, D.C. 20408; (202) 523-3298.

DON'T FORGET the Anthropology Resource Center for Teachers, located in the Naturalist Center of the National Museum of Natural History, is open Wednesday through Saturday from 10:30 a.m. to 4 p.m. and on Sunday from noon to 5 p.m.



## UPCOMING EVENTS

A wealth of educational and cultural opportunities for teachers and students abounds in the Washington, D.C. metropolitan area. This column notes lectures, classes, and symposia related to anthropology which are offered by local universities, museums, and anthropological associations. We hope you can take advantage of these opportunities to meet with scholars and learn more about recent research and issues in anthropology.

Feb. 17: "Carnival: Ritual and Play in Rio de Janeiro" by Edith and Victor Turner (University of Maryland). Followed by a commentary on popular culture with Ralph Rinzler, Director of S.I. Folklife Program, and Peter Seital, senior folklorist. Anthropological Society of Washington (A.S.W.) meeting at 8:15 p.m. in the Carmichael Auditorium, Museum of American History (formerly National Museum of History and Technology).

March 16: "Viking and Skraeling: The New World Contact" by Dr. William Fitzhugh (Smithsonian Institution). Talk will be held in the Baird Auditorium in the National Museum of Natural History at 8 p.m. For ticket information call the Smithsonian Resident Associate Program at 381-5157.

March 17: "The Potentials of Anthropological Filmmaking: Myra Goli (Kenya) -- a Case in Point." Filmmaker Sandra Nicholas will be joined in discussion with Karl G. Heider and Susan Dwyer-Schick. A.S.W. meeting at 8:15 p.m. in the Carmichael Auditorium, Museum of American History.

March 18: "Procuring Research Grants" by Dr. Michael Kenny, Dr. David Clark, and Dr. Swartz. Meeting will take place in the Archaeology Laboratory at Marist Hall, The Catholic University of America at 7:30 p.m.



March 25: "Cultural Devolution in Tasmania and Patagonia" by Dr. Douglas Sutton (post-Doctoral Fellow, Smithsonian Institution). Talk will be held in the Baird Auditorium in the National Museum of Natural History at 8 p.m. For ticket information call the Smithsonian Resident Associate Program at 381-5157.

March 25: "Prehistoric Demography: Some Considerations" by Dr. Anne Palkovich (University of Maryland). Meeting will take place in the Archaeology Laboratory at Marist Hall, The Catholic University of America at 7:30 p.m.

April 1: "The Uses of Geomorphology and Pedology in Archeology" by Dr. J. Foss and Dr. A. Segovia (University of Maryland). Meeting will take place in the Archaeology Laboratory at Marist Hall, The Catholic University of America at 7:30 p.m.



## MONKEYS, APES, AND HUMANS: THE STORY OF PRIMATES

"Monkeys, Apes, and Humans" is a new program for high school students (9th - 12th grades) sponsored jointly by the National Zoological Park and the National Museum of Natural History. This program combines the resources and viewpoints of both zoology and anthropology. Students learn to observe and collect data on primate behavior, formulate hypotheses based on observation of living and skeletal forms, and compare and contrast the physical and social development of monkeys, great apes, and humans.

The program lasts approximately eight hours -- spread out over several visits. Although visits may be arranged to suit individual class needs, the following schedule is suggested:

- Week 1: National Zoo, 2 1/2 hrs.
- Week 2: Museum of Natural History  
2 1/2 hrs.
- Week 3: Museum of Natural History  
2 1/2 hrs.

Typically, during the first day at the Zoo, students view a short film about a monkey mother and infant, in

order to learn observational and analytical skills. Following this, students visit the Monkey House and work in groups to observe behavior such as interaction, locomotion, or communication.

On the second day, at the Museum of Natural History, the group participates in an introductory exercise in the classification of the primate order that includes a detailed comparison of the skeletons of the major primates.

On the third day, again at the Museum of Natural History, the students focus on the development of humans through time, using exhibits and actual skeletal materials. A final discussion is held to review the highlights of primate physical and social development, and to provide an opportunity for students to discuss more fully the unique nature of man's cultural heritage.

To arrange for your class to participate in this new and stimulating program, call the Office of Education, National Museum of Natural History, at 357-1756 or call the FONZ at 232-7703.



# BOSTON NOTES

Contributing Editors: John Herzog, Beatrice Kleppner, and Mary Anne Wolfe

ANTHRO·NOTES, Winter 1981 inaugurates a new regular feature, BOSTON NOTES to be compiled by three Bostonians: John Herzog from Northeastern University, Mary Anne Wolfe from North Reading High School, and Beatrice Kleppner from the Beaver Country Day School. BOSTON NOTES will offer precollegiate anthropology news from the Northeast of general interest to teachers and anthropologists throughout the country.

With this issue we also welcome approximately 200 new readers -- all from the Boston area! As clear from the article below, many Boston area teachers are incorporating anthropology into their teaching, and wish to learn about new materials and approaches. We have developed BOSTON NOTES to serve the needs of these teachers, and to promote the exchange of ideas between Washington and Boston. We hope that Boston teachers will contribute articles to ANTHRO·NOTES as well as send us additional names of teachers who would also like to receive ANTHRO·NOTES free of charge. Send both articles and names to Ann Kaupp, Department of Anthropology, Stop 112, Smithsonian Institution, Washington, D.C. 20560.

## ANTHROPOLOGY COMINGS AND GOINGS

Teachers of anthropology and courses with anthropological content will be interested in several clinics scheduled for the Northeast Regional Conference on the Social Studies (NERCSS), to be held March 4-7 at the Sheraton-Boston Hotel, Boston. Staff and participants of the Approaches in Anthropology Summer Institute, sponsored by the National Science Foundation, planned and will lead the sessions.

Strategies for actively involving students in learning about subcultures in their immediate environments will be presented by teachers who have been encouraging their students to "do ethnography" during the past few years. Topics will include intensive study of local institutions, investigations into "teenage subcultures", graffiti analysis, the construction of genealogies and family histories, and student use of film and photography as research tools. A teacher, whose classes commercially publish their own magazine based on their research, will discuss ways of

helping students to write for publication. This clinic will take place on Thursday, March 5.

Difficulties in drawing conclusions from reports about other cultures will be the focus of a second clinic called, "How Fierce Are These People?", on Friday, March 6. Participants will learn about using conflicting ethnographic and documentary evidence in lessons on other cultures, in this case various reports on the Yanomamo Indians, an endangered group living in the Amazon Basin. Participants will use their own observations from extracts from ethnographic films, still photos, interviews, and monographs to determine whether they think the Yanomamo truly deserve their reputation as "The Fierce People". Elementary and secondary teachers who participated in the Approaches in Anthropology Institute will describe their experiences using this technique with students, and suggest ways of adapting it to other anthropological and social science topics.

A general meeting for teachers of anthropology and courses with anthropo-

logical content will also be held on Friday at 5:00 p.m. At this Special Interest Group meeting, participants will share particularly successful lesson plans, materials, and ideas; those attending are asked to bring one of the above as their "admission ticket" to the meeting. Members will also begin planning for the 1982 NERCSS sessions and discuss additional activities for anthropologically-oriented educators in the New England/Eastern region.

If other recent NERCSS meetings are indicative, additional sessions of direct interest to teachers of anthropology will also be scattered through the four-day program. Complete details about the meetings can be obtained from Jana Bremer, NERCSS Program Chairperson, 960 South St., Walpole, Mass. 02081.

These specific anthropology sessions at NERCSS emerged from the NSF-funded Approaches in Anthropology Institute, held at Northeastern University in Boston during the four weeks of July 1980. The Institute introduced or refamiliarized participants with contrasting theoretical frameworks that contemporary anthropologists use in studying and analyzing topics such as "human nature", women's roles, the culture concept, sociocultural change, and urbanization -- all topics frequently "taught" in pre-collegiate courses. Participants considered how a particular anthropologist's frame of reference influences his/her choice of subject to study, the hypotheses he/she forms, and his/her methods of collecting and interpreting data. Societies frequently included in precollegiate courses (e.g., San or Bushmen, Yanomamo, Plains Indians) were examined through different anthropologists' frames of reference. Commonly used instructional techniques (e.g. ethnographic film, student fieldwork, some of the recent high school anthropology texts) were analyzed to understand how anthropologists', teachers', and

students' frames of reference partially determine what each "sees".

Theoretical frames of reference emphasized included structural/functionalism, sociobiology, dialectical marxism, and structuralism. For several sessions the Institute borrowed the staff and facilities of Documentary Educational Resources, Inc. (DER) of Watertown, Mass., producers and distributors of well-known films on the San, Yanomamo, Eskimo, and others. Participants also experimented with a "Writing-Anthropology" model for teaching the subject, adapted from a "Writing-History" technique developed by Professor Henry Giroux of Boston University, and presented by the originator to Institute participants. The Writing-Anthropology Model explicitly employs the frame of reference perspective upon which the Institute was based.

Northeastern University has applied to NSF for funding for a second summer program, this one entitled, "Workshop on the Study of Human Society", and tentatively scheduled for July of 1981 in Boston. The Workshop is intended for teachers of anthropology and related subjects, and will focus on theoretical frameworks, substantive topics, research methods, societies, and instructional methods similar to but not identical with those examined in the 1980 Institute. Persons wishing further information on the 1981 Workshop should write, after February 15, 1981, to Professor John D. Herzog, CU 319, 102 The Fenway, Northeastern University, Boston, Mass. 02115.

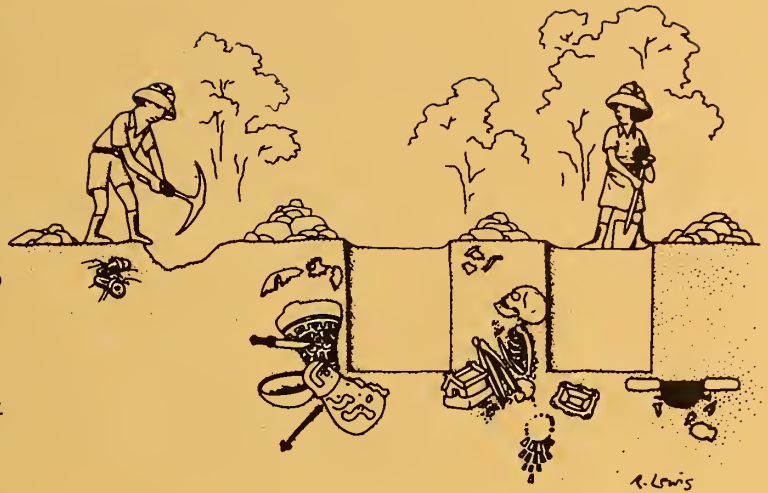
Anthropologists interested in applying to the National Science Foundation for funding for similar summer institutes, or for year long teacher training programs, can write to: Dr. Theodore Reid, Program Manager, Pre-College Teacher Development in Science, Room W-460, National Science Foundation, 1800 G St., N.W., Washington, D.C. 20550.

John Herzog  
Mary Anne Wolfe



## DIARY OF A FIELD PROJECT

I like to include fieldwork in my anthropology courses at the Beaver Country Day School in Boston, Massachusetts. During the past twelve years, my students have lived at Plymouth Plantation, and in homes of students in Quebec Province and Bermuda; they have dug sites on Prudence Island and done numerous community studies. Organizing fieldwork requires virtues and vices: imagination, optimism, opportunism, and bravado. There is no simple recipe for a successful field project; each is unique. The best guide might be a diary. This is a good time to start one since a project which has been flitting around in the back of my mind for a while is about to take shape.



January 1981

You can't walk far in Vermont woods without coming to a stone wall, a signal that the woods were once fields cleared for farming. The state is a gold mine of cellar holes, now marked by foundation walls and often a large stone stoop. On the land I know there is mostly woods, but there are old timers who remember when the woods were mowings and pastures, and when many barns stood around the land. What an opportunity! Within a few hours' drive from school there are possibilities for historical archeology, agricultural archeology (if there is such a thing), oral history, and archival history.

I visited a friend in Billsville over Christmas (real town but fictitious name). The villagers are upset because an outsider has cut a snowmobile trail through a farmer's woods. The villagers use each other's lands freely but are upset when anyone abuses the property. Hunting is okay; tree cutting is not. Thus the trail which looks small to me looks large to them. Land rights

are very important, though it is rumored that deed maps and town archives simply sit in the town clerk's car trunk until a town hall is built. Vermonters are not taciturn when it comes to land disputes.

Other news -- the town is collecting money for a family burned out of their home. Lots of talk in the post office and general store. House burnings are no novelty in Billsville as I can see from the headstones in the village graveyard. The graveyard dates back to the 18th century and a number of families perished when their homes burned.

My impulse is to grab a bunch of students and rush back to Vermont armed with tape recorders and cameras -- but fieldwork generally works best if there is a professional involved. How to make a contact? I've put in a call to the Vermont State archeologist. Let's see what develops.

Beatrice Kleppner

ANTHRO•NOTES is part of The Anthropology for Teachers Program. This program is funded by the National Science Foundation and conducted by the Anthropology Departments of George Washington University and the Smithsonian Institution. Program Staff: Dr. Alison S. Brooks, Director; JoAnne Lanouette and Ruth O. Selig. If you want information about the program or your name added to the mailing list, write: Ann Kaupp, Department of Anthropology, National Museum of Natural History, Stop 112, Smithsonian Institution, Washington, D.C. 20560.

ANTHRO•NOTES STAFF: Ann Kaupp, JoAnne Lanouette, Ruth O. Selig, editors; Dr. Robert Humphrey, Mr. Robert Lewis, artists.

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# anthro•notes

a newsletter for teachers

1995

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## TUITION - FREE COURSE

Are you a teacher who would like to learn more about anthropology? Would you like to integrate this fascinating subject into your curricula? Would you like to meet university and museum anthropologists to learn of their research? If so, you can apply now for the 1981-1982 Anthropology for Teachers Program. Anthropology 255-256 is a TUITION-FREE, graduate credit course specifically designed for science and social science teachers in the Washington D.C. metropolitan area. The program is funded by the National Science Foundation and conducted by the Anthropology Departments of George Washington University and the Smithsonian Institution. A background in anthropology is not necessary. The three course sections will meet weekdays in Montgomery County (including Howard County teachers), Prince George's County, and Fairfax County, and once-a-month on Saturdays at George Washington University or the National Museum of Natural History. For further information, write Ruth O. Selig, Department of Anthropology, NHB-Stop 112, Smithsonian Institution, Washington, D.C. 20560, or call 357-1592. Deadline for receiving the completed application form is July 10, 1981.

## WHAT'S NEW IN HUMAN EVOLUTION?

Four articles in current popular science journals focus on new developments in human origins research.

Featured in the March and April issues of SCIENCE 81 are two excerpts from LUCY: THE BEGINNINGS OF HUMANKIND, a new book by the anthropologist, Donald C. Johanson and Maitland A. Edey, a science writer. "Lucy, The Inside Story" (March 1981) tells the fascinating account of how Johanson and his co-workers determined that his new fossil, Lucy, represented a new species and the earliest known common ancestor of all the later hominids from the Pliocene and Pleistocene epochs. The article also details the subsequent argument with the Leakeys over whether Mary Leakey's equally ancient new finds from Laetoli should be included with Lucy (Johanson's view) or recognized by themselves as the earliest ancestor of our own genus Homo with Lucy and the australopithecines relegated to the sidelines (Leakey's view).

Other anthropologists continue to argue over the validity of the new species, Australopithecus afarensis. Is it just a smaller and earlier version of Australopithecus africanus? Is it really different enough to merit species

INSIDE: UPCOMING EVENTS-5, TEACHER'S CORNER-6, SUMMER DIGS-10, BOSTON NOTES-12

distinction?

"How Ape Became Man" (April 1981) discusses Owen Lovejoy's theory that caring for infants, not a new feeding pattern (meat-eating), was the driving force behind the basic human adaptation of bipedalism. Bipedalism is a terrible way to get around since it slows us down, but it does help us carry food and infants. Lovejoy's vision of females sitting around camp raising young while males provide all the food seems extreme. The basic idea of involving males as additional providers in the family unit through a monogamous relationship, however, accords with the facts: human females have very few offspring, do not advertise their periods of maximum fertility (estrous), and are remarkably similar to males in size. Lack of marked sexual dimorphism correlates with monogamy not only among primates but among mammals generally. Exclusive male provisioning of females and young, however, tends to occur only among carnivores.

The NEW YORK TIMES science writer, Boyce Rensberger, gives an excellent short review of new views on human origins from Ramapithecus to Cro-Magnon, in the April issue of SCIENCE DIGEST ("Ancestors: A Family Album"). The article covers not only Pilbeam's views on the distinctive non-hominid nature of Ramapithecus and Johanson's views on Australopithecus afarensis, but also new conclusions about early Homo (habilis) derived from Richard Leakey and Glyn Isaac's work at East Turkana (formerly Lake Rudolf). New dates for Homo erectus derived from the same sites, the earliest engravings and crayons from Europe, and the possibility that Homo sapiens may have evolved in southern Africa are also discussed.

The fourth article "Neanderthal the Hunter", in the January issue of NATURAL HISTORY, is a poor comparison to the other three. Valerius Geist, "an authority on the ecology of un-

gulates", argues that Neanderthals needed to hunt large animals exclusively in order to meet the nutritional demands of their families during the winter. He asserts their hunting took the form of confronting the animal at close quarters, killing it with a hand-ax, gnawing the meat off the barely thawed carcass, and tossing the bones into the fire. Since they did not have storage facilities, they had to live in small groups in the midst of large herds and had to hunt often. The demise of the Neanderthals is supposedly explained by the demise of their large prey around 35,000 B.C., during a warm period in the Ice Age.

Unfortunately, this theory is based on a very limited knowledge of the Neanderthal data as well as on many misconceptions about the people who succeeded the Neanderthals. Most Neanderthal sites were excavated at a time when archeologists did not use screens; hence the bones of small prey were rarely recovered. Special deep pit hearths with air flues suggest that bones were used by both Neanderthals and Cro-Magnon people as fuel, not dropped into a wood fire accidentally.

The fact that modern hunters do not use Neanderthal tool types (although the Australian aborigines came close) does not mean that no parallels can be found between modern and ancient hunters. Contrary to the author's assertion, many archeologists (including some women) have had "the strength" to duplicate the tools of Neanderthals, as well as some of the wear patterns. Cro-Magnon people did not preserve meat to an obviously greater degree than Neanderthals, nor did they invent spear-throwers until the very end of the Ice-Age. Nor did Mesolithic people kill and eat each other in large numbers to ward off protein starvation in the wake of Pleistocene extinctions. Finally, all hunters roast meat in the ashes and experience considerable tooth wear from the grit on their food. This cannot be used to explain Neanderthal molars, which were not continuously growing in any case as the author claims.

(cont'd)



This article is an unfortunate exception to the generally excellent quality of anthropology reporting in NATURAL HISTORY.

Alison S. Brooks  
Associate Professor of  
Anthropology  
George Washington University

## LUCY IN THE SKY WITH DIAMONDS

A new and wonderful book on human origins has come to town. You won't want to miss it.

If you teach physical anthropology, *LUCY: THE BEGINNINGS OF HUMANKIND* by Donald Johanson and Maitland Edey (New York: Simon and Schuster, 1981, \$16.95) could be the unusual centerpiece around which to build an exciting course. Fascinating and clearly written, the average high school student can understand much of it. *LUCY* is a great suspense story. The book discusses Johanson's discovery of a skeleton he named Lucy (after the Beatles' famous song) found in the Afar region of Ethiopia in 1974. His subsequent conclusion, drawn over the next three years, is that Lucy is an entirely new species, *Australopithecus afarensis* -- the oldest known, most complete, bipedal pre-human in the world, ancestral to the other *Australopithecines* and to *Homo*.

Any student wondering what it might be like to become a physical anthropologist could find inspiration here. Physical anthropologists, many being competitive and self-protective, do not all agree on Lucy's importance. Richard and Mary Leakey are among the most famous of the dissenters. Part of the book's charm lies in the open way in which Johanson reveals his self-doubts, anxieties, arguments with his partner, Tim White, and triumphant cunning toward the Leakeys. Johanson's other, more essential ingredients in



the creative process are readily apparent: his excellent training, meticulous labor, good luck (he found 13 more skeletal remains which he considers to be of the same species as Lucy), imagination, and ability to put aside his biases.

The book's utility also lies in its giving a history of the discoveries of human origins and their significance (including some fresh and lively anecdotal material about well-known finds such as the Taung baby and the Piltdown hoax), an explanation of dating techniques, and diagrams and photographs of excellent clarity and relevance.

Joyce Abell  
Wootton High School  
Montgomery County Public  
Schools

## RECEPTION/REUNION FOR TEACHERS

Past and present participants in the Anthropology for Teachers Program gathered together on a recent Sunday evening in the Naturalist Center to drink wine, greet old friends, and make new friends. All classes from the past three years were well represented, as was the newest generation -- with six week old Alexander Brooks Yellen sleeping peacefully through it all! Several teachers spoke on recent anthropological adventures, including Bob Loftus on his Earthwatch fieldwork in the Mojave Desert searching for American Indian petroglyphs; John Day on teaching a cross-cultural economics

unit; Martha Williams on her summer archeology field course for high school students; and Judy Elliott on her students' fundraising efforts to help Geza Teleki establish a chimpanzee game preserve in Sierra Leone.

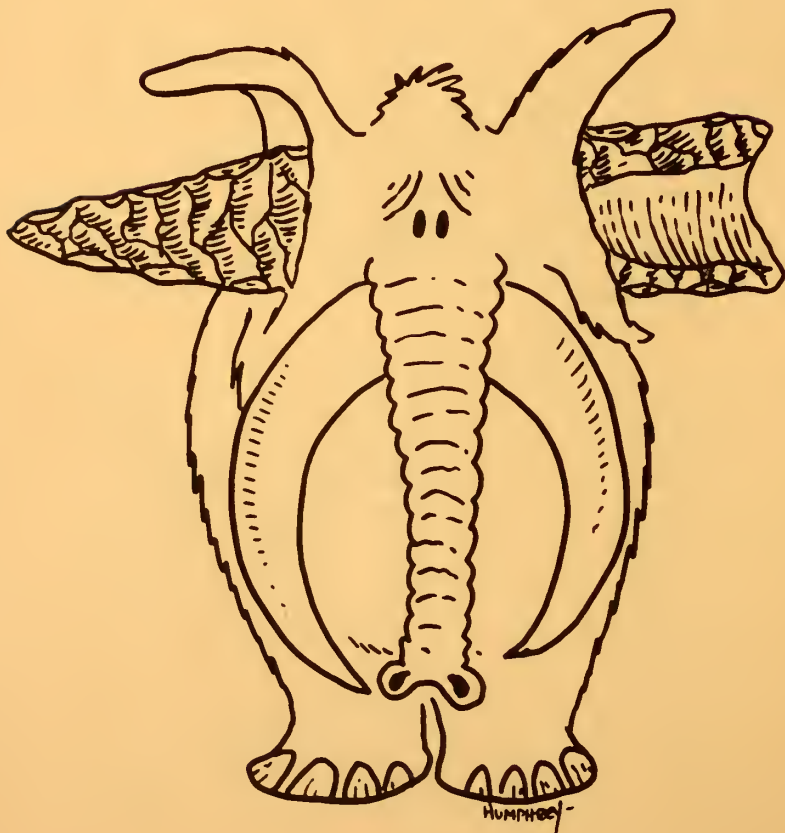
At the conclusion of the evening teachers made suggestions regarding speakers, panel discussions, and films for evening meetings next year. Two energetic teachers suggested we initiate a pre-college anthropology teachers' association, an idea we plan to pursue! If anyone is interested in helping form an association, please contact Ruth Selig at the Smithsonian at 357-1592.

\* \* \* \* \*

## BONING UP

The Naturalist Center has available video programs to supplement the Naturalist Center's Learning Laboratory in Human Osteology. These three tapes (more to come) discuss an introduction to interpretations of the human skeleton. A general overview of the subject, determination of age, and interpretation of sex differences are the topics available for viewing in the Naturalist Center. (Wed.-Sat., 10:30-4 p.m.; Sunday, 12-5 p.m.)

The Naturalist Center also has available a new guide dealing with physical anthropology entitled "Bone Changes After Death", prepared by Dr. Lucille St. Hoyme, Curator, Physical Anthropology, Smithsonian Institution. This publication may be purchased at the Naturalist Center for \$1.50 per copy. For additional information contact the Naturalist Center's Manager or Ass't. Manager at 357-1503 or 357-2804.







## UPCOMING EVENTS

April 15 - June 3: "Mysteries of the Nile" by William MacDonald (George Washington University). This lecture series traces the development of archeological and cultural research in Egypt. Classes will be held on Wednesdays from 12-1:30 p.m. To register call the S.I. Resident Associate Program office at 357-3243. Individual classes may be attended.

April 16: "In Search of Eternity, Life and Afterlife in Ancient Egypt" by Mohammed Saleh (Vice Director of the Egypt Museum in Cairo). S.I. Resident Associate Program lecture at 6 p.m. in Baird Auditorium, Museum of Natural History. Tickets (members \$2.00; nonmembers \$2.50) available at the door only.

April 21: "Collecting in Anthropology: Ethics and Assets" by Dr. Elizabeth King (University Museum, University of Pennsylvania) and Elizabeth P. Benson (former Curator, Dumbarton Oaks). Anthropological Society of Washington (A.S.W.) meeting at 8:15 p.m. in the Carmichael Auditorium, Museum of American History.

April 22: "The Late Archaic of Plum Nelly" by Steve Potter (National Park Service). Discussion takes place in the Archaeology Laboratory at Marist Hall, Catholic University at 7:30 p.m.

For further information call April Fehr at 635-5080.

April 23: "The Temple Mound Builders of the Mississippi Valley" by Dr. Bruce Smith (Associate Curator, Department of Anthropology, Smithsonian Institution). S.I. Resident Associate Program lecture at 8 p.m. in Carmichael Auditorium, Museum of American History. For ticket information call the S.I. Resident Associate Program office at 357-2196.

April 24: "The Sons of Hadji Omar" by Dr. William Trousdale (Curator, Department of Anthropology, Smithsonian Institution). Film and discussion will be held in the Baird Auditorium, Museum of Natural History at 12 p.m. Free.

April 25 - June 20: Alexandria Urban Archaeology Program conducted by Steve Shephard (Ass't. Director of Alexandria Archaeological Research Center). Course entails the excavation of 18th and 19th century upper-class residences in Old Town Alexandria, on Saturdays, from 1-3 p.m. To register call the S.I. Resident Associate Program office at 357-3243.

May 19: "Can Linguistic Evidence Build a Defense Theory in a Criminal Law Case?" by Dr. Robert W. Shuy (Georgetown University). A.S.W. meeting at 8:15 p.m. in the Carmichael Auditorium, Museum of American History.

## TEACHERS' CORNER:

### STUDENT ETHNOGRAPHY

Editor's Note: How can students experience fieldwork? In the last issue of *Anthro·Notes*, Martha Williams' article "Fieldwork in the Classroom" described how her anthropology students interviewed foreign students in her school's English as a Second Language classes. Another way to have students do fieldwork is described below by Beatrice Kleppner, a Boston teacher. Her 11th and 12th grade students do mini-fieldwork projects in the community at the end of their year-long course in anthropology. Mrs. Kleppner shares with you her instructions to the students for preparing their "ethnography of a small cultural unit."

#### Getting Started:

Choose a cultural unit for your study. This might be a neighborhood, office, store, a club, or an interest group. If at all possible, choose a subject with which you have a tie or contact. Your criteria for selecting the cultural unit are simplicity, accessibility, unobtrusiveness, permissibility, and recurring activities. Before setting to work be sure to discuss your choice with me.

#### A Note on Ethical Responsibility:

Before starting fieldwork, you should be aware of your responsibility with respect to ethical problems which may arise. The American Anthropological Association's publication, "A.A.A. Principles of Professional Responsibility" (A.A.A. NEWSLETTER 11(9), 1970), is required reading.

#### Style:

A successful ethnographic study requires perceptive and detailed observation and a skillful narrative style. It is important that you study at least one professional monograph. I recommend

Spradley and Mann's *COCKTAIL WAITRESS* (John Wiley and Sons, 1975) or Carol Stack's *ALL OUR KIN* (Harper and Row, 1975).

#### Point of View:

To carry out a successful study you must be very sensitive to the point of view of your subjects. For instance, a café could be described from the point of view of the customer, the waiter, the owner, the dishwasher, the chef, the janitor, or the cabaret performer. Your study may concentrate on one point of view; nevertheless, you should be aware of all the points of view involved, not least your own point of view.

#### Your Notebook:

Keep a record of your research in a separate notebook. This will be the prime resource for writing your paper and must be handed in with it. The notebook should contain:

- 1) a description of the physical setting of the institution or scene. A map or sketch can be helpful;
- 2) a short introductory description of the cultural unit, with a brief history, if appropriate;
- 3) a list of informants with a description of each;
- 4) a list of questions that you will ask;
- 5) the responses of your informants. Direct quotes from these responses will be an important part of your paper. Wherever possible, quotes should be verbatim. A tape recorder can be useful, and the tapes can later be transcribed in your notebook;
- 6) notes and jottings on your own opinions and observations as they occur and dates for each entry; and
- 7) a glossary of specialized terms or slang used by the person or persons you observe.

(cont'd)



## The Paper:

Before starting to write your paper, you must organize and analyze your data. At this point you may very well find you have not asked the right questions or that the data is incomplete. If this should occur, please discuss the problem with me during our weekly conference. The paper should include:

### 1. Introduction

A general statement about the subject and your reason for choosing it. If possible, attempt to relate it to universal cultural concerns. For instance, a study of a nursing home could refer to the universal problems of aging in all societies and to ethnographic studies, such as Leo Simmon's *ROLE OF THE AGED IN PRIMITIVE SOCIETY* (Hamden, Ct.: Shoe-string Press, 1970).

### 2. Description of the Cultural Unit.

This is drawn directly from your notes.

### 3. Discussion of Your Fieldwork Experience

Describe how you found your informants, characteristics of informants, defects in your approach, and any special problems you might have encountered. (For example, a study of a student lounge may hit sensitive information about vandalism.)

### 4. The Main Body of the Paper

This will include your data, your observations, and your thoughts. Each should be clearly identified. It is important that you pull together and clearly analyze the data in order to support your interpretation.

### 5. The Conclusion

Your study should point to a few dominant themes. These should be clarified or emphasized in your conclusion.

### 6. Footnotes and Bibliography

Beatrice S. Kleppner  
Beaver Country Day School  
Boston, Massachusetts

(Editor's Note: see bibliography next page)



## BIBLIOGRAPHY ON STUDENT FIELD PROJECTS

Crane, Julia G. and Michael V. Angrosino. *FIELD PROJECTS IN ANTHROPOLOGY: A STUDENT HANDBOOK*. Morristown, N.J.: General Learning Press, 1974.

While designed for undergraduate students, the book gives 14 projects that could be revised for high school students. The projects represent some of the most commonly used data collection techniques such as making maps, charting kinship, collecting life histories, and digging into cultural history. A readable text, appropriately designed activities, and an excellent selected annotated bibliography for each project result in a valuable resource for teachers.

Hunter, David E. and Mary Ann B. Foley. *DOING ANTHROPOLOGY: A STUDENT CENTERED APPROACH TO CULTURAL ANTHROPOLOGY*. N.Y.: Harper and Row, 1976.

Applying an easy-to-use, inductive approach, this book consists of 27 exercises with extended discussions. It is designed to teach students with little or no previous exposure to anthropology how to observe and think like an anthropologist, not how to master field techniques. The exercises focus on observations; settings; categorization, especially of food; ego and his networks; and patterns. The exercises are short, directed to a single point, and do not demand that the student juggle a large amount of data

Spradley, James P. and David W. McCurdy. *THE CULTURAL EXPERIENCE: ETHNOGRAPHY IN A COMPLEX SOCIETY*. Chicago: Science Research Associates, 1972.

An excellent source by authors who believe in active student involve-

ment. From their teaching experience, they found students did not know what questions to ask and how to ask them. The first section contains five chapters: covering goals of fieldwork, how to find a culture to study in our own complex society, how to find and work with informants, ethnographic semantics, and how to analyze field data and write an ethnographic account. The second section includes a dozen sample ethnographies ranging from an ethnography of a junior high school to an ethnography of fire-fighters. The book concludes with a six page bibliography.

Spradley, James P. *THE ETHNOGRAPHIC INTERVIEW*. N.Y.: Holt, Rinehart, and Winston, 1979.

Compared to *THE CULTURAL EXPERIENCE*, the next two books by Spradley are far more detailed in methodology for conducting community fieldwork and the instructions are for the student, not the teacher. The two volumes, however, do not contain sample student ethnographies. This excellent book clarifies the nature of ethnography and gives specific guidelines for doing ethnography for professionals and students without long years of training in anthropology. Spradley sets forth 12 major interview tasks designed to guide the investigator from the starting point of locating an informant to the goal of writing the ethnography.

Spradley, James P. *PARTICIPANT OBSERVATION*. N.Y.: Holt, Rinehart and Winston, 1980.

The step-by-step instructions show the beginning student how to do fieldwork in their community using participant observation. The activities take several hours each week. The goal is to begin and complete a qualitative research project. This very practical and clearly explained book is divided into two parts: 1) ethnography and culture; and 2) the 12 step developmental research sequence.





## SUMMER ON THE MALL

Summer '81 on the Mall promises to be an exciting time. A major exhibit "5,000 Years of Korean Art" opens at the Museum of Natural History July 15th. The Festival of American Folklife will hold ten days of activities on the Washington Monument grounds, from June 24th through July 5th.

"5,000 Years of Korean Art", the most comprehensive exhibition of its kind ever shown in this country, provides a rare view of a rich but little known artistic heritage. "Bounded on the north by the vast land mass of China and pointing south to the Japanese islands, Korea was destined to play an important cultural role in East Asian history. The artistic traditions of these neighboring countries were quickly absorbed, passed on, and often transformed by a distinctly Korean vision." Objects in the exhibition date from 3,000 B.C. through the 20th century. They will be on view in the new special exhibits gallery from July 15th through September 30th.

For this exhibition, the Smithsonian will sponsor a wide range of lectures, free films, symposia, classes, workshops, craft demonstrations, and performances of Korean dance and music. For further information call the Office of Education at the Museum of Natural History - 357-2810.

The Festival of American Folklife celebrates its 15th anniversary by moving back to summer! Two five-day segments, June 24-28, and July 1-5, will take place, with events occurring between 11 a.m. and 5:30 p.m. Wednesdays through Sunday. Evening concerts will occur as well. Plans for the festival include a variety of performances and demonstrations by Yugoslav-American cooks, dancers, and singers; musicians and craftworkers from the southeastern United States; adobe housebuilders from the Southwest; traveling performers of the tent show era in America; and native American Ojibwe (Chippewa) craftworkers and musicians from Minnesota. For the first time an area will be devoted to programs on the Folklore of the Deaf. In addition, a children's area will be featured where children can learn as well as teach traditional games, crafts, and songs.

For further information on the Folklife Festival call 287-3424.



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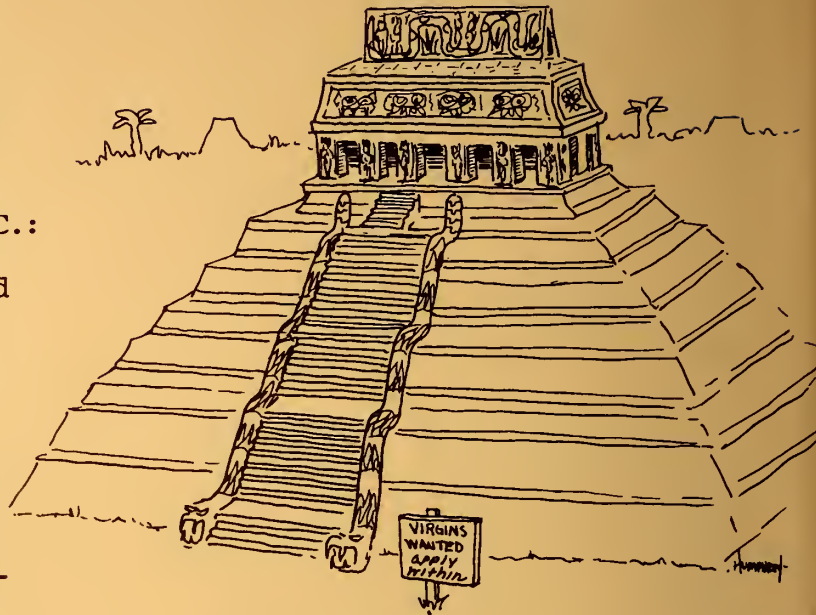
## SUMMER OPPORTUNITIES FOR TEACHERS AND STUDENTS

Alexandria Archaeological Research Center offers volunteer opportunities for students and adults in the exploration of the social history of Old Town Alexandria through archival work and excavation. This season the concentration is on the survey of 18th and 19th century upper-class neighborhoods. Those interested can call Steve Shephard at 838-4399. The following schools will be offering archeology field school programs this summer in cooperation with the A.A.R.C.: George Mason University from May 25 - June 26 (for information write Shepard Krech, Anthropology Program, George Mason University, Fairfax, Virginia 22030, or call 323-2904); and George Washington University (see page 11).

Catholic University is continuing its intensive investigation of the paleo-Indian complex at Thunderbird Archeological Park near Front Royal, Virginia conducted by Dr. William Gardner. First session runs June 22 through July 10; second session runs July 13 through July 31. To register write to Summer Sessions Office, McMahon Hall, Room 116, Catholic University, Washington, D.C. 20064.

Fairfax County Archeological Survey offers volunteer opportunities in survey, excavation, and laboratory work in both historic and prehistoric archeology. High school and college interns may receive credit. For further information call Mike Johnson (prehistoric archeologist) or Ed Chatelain (historic archeologist) at 642-5807.

Fairfax County Public Schools sponsors a six-week historic archeology course for high school students. The course entails two weeks of classroom study and four weeks of excavation. The field school will operate from June 29 through August 8. Deadline for application is May 20th. For information



write: Dr. Frank Taylor, 6131 Willston Drive, Falls Church, Virginia 28044, or call 536-2030 ext. 220. Non-residents of Fairfax County may apply at the nearest Fairfax County high school.

George Washington University is in its eighth season conducting a summer field program in Mesoamerican Archeology and History. The program will follow the "cultural heritage of Middle America -- from the earliest ice-age hunters, through the emergence of agriculture, the achievements of pre-Columbian civilizations, the Spanish Conquest, to the present-day development of Mexico." The session will be held from July 1 - July 28. A deposit must be made before June 1st. For further information write to Professor Robert L. Humphrey, Department of Anthropology, George Washington University, Washington, D.C. 20052, or call 676-7075.



George Washington University sponsors two four-week field sessions in historical archeology in Alexandria, Virginia. The field sessions (June 15 - July 10; July 15 - August 11) will focus on the excavations of 18th and 19th century black households. For further information and application form, write to Dr. Pamela J. Cressey, Field Director, Alexandria Archaeological Research Center, City Hall, Box 178, Alexandria, Virginia 22313. Applications must be submitted by May 15th.

Washington Area Studies Summer Institute of George Washington University is offering a special program "The Folklore of the Washington Region" from May 11 - July 2 on Thursday evenings from 6-9 p.m. The course will offer a regional view of the traditional life in the Washington area. "Special emphasis will be placed on the role of governments in the description and analysis of the area's folk cultures, and the impact of governmental activity upon area residents, their way of life and the cultural metabolism of the region as a whole." For further information, contact Division of University and Summer Students at 676-6360.

Maryland Geological Survey, Department of Natural Resources is conducting a controlled surface collection in St. Mary's County. To volunteer for this project, contact Mr. Epperson at 338-7235.

University of Maryland is offering an eight week summer fieldwork session at a 17th century colonial house site at St. Mary's City, Maryland. The session includes five weeks of excavation and three weeks of survey. High school teachers and students are welcome to apply. For further information call Ann Palkovich at 454-6970.

Summer Study in Sri Lanka (formerly Ceylon) Program sponsored jointly by the University of Maryland and the University of Kelanuja is designed to introduce students to traditional Sir Lankan culture through lectures, field

trips, and independent field studies. Serious students must apply immediately. Call the Study Abroad Office of the University of Maryland at 454-3043.

The Summer Institute of Development Studies is sponsoring an interdisciplinary approach with course offerings such as "Women in Development", "Anthropological Field Methods", "Population and Fertility", and "Rethinking the Problems of Development" taught by visiting eminent professors of the Third World. For more information, write to Dr. Karen Rawlings, Director of International Affairs, 113 N. Administration, University of Maryland, College Park, Maryland 20742, or call 454-3008.

New York University, in cooperation with the National Park Service, is sponsoring an Archaeological Field School from July 27 - September 4 in the District of Columbia's Rock Creek Park which contains both prehistoric and historic sites. For further information contact Dr. Bert Salwen, Department of Anthropology, 25 Waverly Place, New York, New York 10003, or call (212) 598-3257.

Smithsonian Institution's Office of Elementary and Secondary Education offers two separate seminars for elementary and high school teachers on the museum teaching approach. Two workshops for teachers include using museums to teach writing and architecture in the classroom. Also available is the "mixed bag series" of special "behind the scene" tours. For further information, call Tom Lowderbaugh at 357-3049.

Field School Listings in anthropology and archeology are available from:

American Anthropological Association  
1703 New Hampshire Ave., N.W.  
Washington, D.C. 20009 (\$2.50)

Archaeological Institute of America  
260 West Broadway  
New York, New York 10013  
(\$3.50; \$1.50 for members)

# BOSTON NOTES

ANTHRO·NOTES, Winter 1981 inaugurated a new regular feature, BOSTON NOTES to be compiled by three Bostonians: John Herzog from Northeastern University, Mary Anne Wolfe from North Reading High School, and Beatrice Kleppner from the Beaver Country Day School. BOSTON NOTES will offer precollegiate anthropology news from the Northeast of general interest to teachers and anthropologists throughout the country.

We have developed BOSTON NOTES to serve the needs of these teachers, and to promote the exchange of ideas between Washington and Boston. We hope that Boston teachers will contribute articles to ANTHRO·NOTES as well as send us names of teachers who would also like to receive ANTHRO·NOTES free of charge. Send both articles and names to Ann Kaupp, Department of Anthropology, Stop 112, Smithsonian Institution, Washington, D.C. 20560.

## CONTRASTING REPORTS: A "WRITING -- ANTHROPOLOGY MODEL"

By presenting contrasting accounts of life in another culture, a teacher can increase student interest in that culture. The contrasts also help students to develop critical thinking skills as they try to construct a more subtle and complete picture of the society than one account alone would provide.

I have found that this approach works well for the study of any society. But I first began to develop it in depth when I was faced with a mass of contrasting, and sometimes contradictory, information about the situation of the Yanomamo Indians in southern Venezuela and northern Brazil.

The following unit plan<sup>1</sup> focuses on the Yanomamo, whose situation is important and controversial. They are frequently cited as being among the world's fiercest people, while at the same time their way of life is being threatened and some Yanomamo themselves are reported to be in danger. The picture students have of the Yanomamo may influence their thoughts about the nature of human aggression as well as any position they might take toward the problems currently faced by the Yanomamo and other indigenous groups in Latin America.

<sup>1</sup> My unit is based on a "Writing -- History" model designed by Henry A. Giroux, "Teaching Contents and Thinking Through Writing," SOCIAL EDUCATION, March 1979, pp. 190-194.



On the opening day of the unit, students are given a "set of information" about the Yanomamo upon which all authors agree. This includes their location, village sizes, type of horticulture, kinship system, and the statement that much fighting and raiding has been reported in some areas.

For homework the class is divided into thirds, each group being assigned an excerpt from a different source to read and report on. The three sources are YANOMAMO: THE FIERCE PEOPLE by Napoleon Chagnon (or a shorter article by Chagnon), THE YANOMAMO INDIANS by William J. Smole, and THE GEOLOGICAL IMPERATIVE published by the Anthropology Resource Center (A.R.C.).

The students' reports usually create some surprise because the pictures of the Yanomamo which emerge are quite different in their emphasis. The students reading Chagnon typically report that the Yanomamo are very "fierce", frequently raid each others' villages to capture women, practice female infanticide, and lose 24% of their adult men in warfare. The students also report that aggressive headmen from large lineages dominate village politics.

Students reading Smole report that some Yanomamo try to appear "fearless", but that this characteristic varies greatly with location. Students report that "gentle" and "tender" also aptly describe the people; that the social structure is egalitarian; that leadership is variable and most often in the hands of vigorous, mature males; that some matriarchs have great influence; and that young women speak up loudly with their views.

Students reporting on the A.R.C. article tell about the disruptive effects of modern trade goods, highway construction and missionary acti-

vity on traditional Yanomamo culture. They note that 54% of all adult deaths among the Yanomamo are due to epidemic disease.

The three lists of information are put on the board and examined for areas of agreement and conflict. Students usually question why the people sound so different in the three reports. At this point, I introduce the concept, "frame of reference": a person's most basic interests, beliefs and values shape the questions asked, data collected, and conclusions drawn. We discuss how Smole, a geographer; Chagnon, an anthropologist; and people at A.R.C., a center for "public interest" anthropology might differ in their frames of reference. Students read forewords, introductions, and concluding chapters for clues.

At this point, students are asked to write their own "organizing idea" about the situation of the Yanomamo. They will test their generalization by reading more material from a number of authors (see Bibliography) and by viewing several ethnographic films about the Yanomamo. The films include "The Axe Fight", which is usually deemed less violent than the local hockey games; "Morning Flowers", a "slice of life" at dawn in a Yanomamo village; and "A Father Washes His Children", a study of a shaman with his children and grandchildren. These and many other ethnographic films are available from Documentary Educational Resources, 5 Bridge St., Watertown, Ma. 02172. A film about the effects of the highway construction on the Yanomamo may be available from A.R.C. in the future.

During several days of additional "data collecting", students are directed to seek out the frames of reference of authors and filmmakers whose work they use. In each case we discuss how the subject chosen, hypotheses, data collected, and frame reference may be influencing each other.

After discussing the films and readings, students work in pairs or individually to write up their own reports on

the Yanomamo, centering the reports on the issues of "fierceness", threats to the Yanomamo, or another aspect of Yanomamo life which has struck them as important. In larger groups or as a class, the students then check the consistency between their evidence and their conclusions. Finally, they help each other to recognize aspects of their own frames of reference and

how these have influenced their reports.

Mary Anne Wolfe  
North Reading High School  
North Reading, Massachusetts

\*For more information on other contrasting accounts units developed by other teachers, please contact Mary Anne Wolfe, c/o North Reading High School, North Reading, Ma.

#### YANOMAMO BIBLIOGRAPHY

Biocca, Ettiore. YANOMAMO: THE NARRATIVE OF A WHITE GIRL CAPTURED BY AMAZONIAN INDIANS. N.Y.: E.P. Dutton, 1971.

Chagnon, Napoleon. YANOMAMO: THE FIERCE PEOPLE. (Case Studies in Cultural Anthropology.) N.Y.: Holt, Rinehart, and Winston, 1974.

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## DIARY OF A FIELD PROJECT

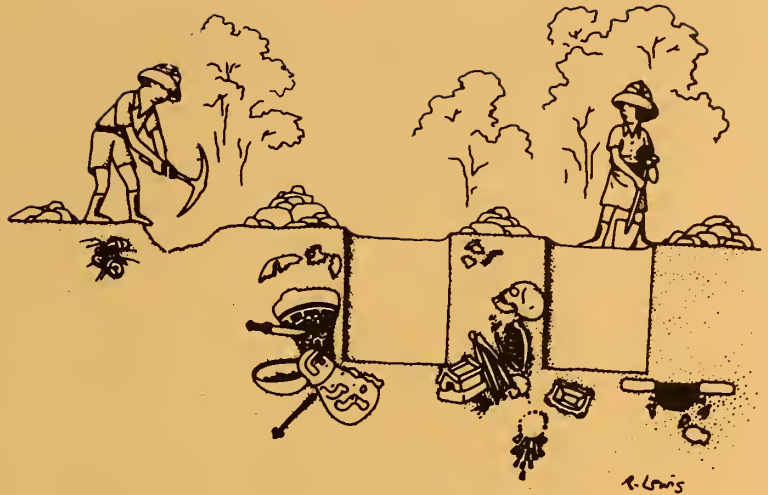
(Second installment. First in Anthro. Notes, Winter 1981.)

February 1981

Had a most enjoyable phone call with Giovanna Neudorfer, Vermont State Archeologist. It seems that historical archeologists are scarce as diamonds in Vermont. Nevertheless, she managed to find a couple of names for me. I have written to them, but so far there is no reply. G.N. says that there are lots of sites to be explored. She is worried about pot hunters. I told her that I am too. She urged us to tie the dig to some historical problem, like sources of kitchen ware, the function of Vermont stone chambers (potato worship?) or changes from sheep to cattle raising. G.N.'s prescription for finding a good problem: learn everything possible about the history of the site -- families, occupations, legends and gossip. Good problems will then arise spontaneously. She recommended visits to the archives at Montpelier and Burlington, and promised to send me some material. Best of all, she gave me a lead to Dr. Allison Saville who has been leading high school students on a dig for the past two years.

### Washington's Birthday Recess

Have received a fat package from G.N. comprised of some site survey forms and a model report on an excavation of a cabin site. Over the recess I visited Dr. Saville at Saxton's River, Vermont. He is extremely friendly and spent the whole morning showing me around. The dig, a colonial tavern, is a few miles from the Vermont Academy, his school. We trekked to the site through the snow on an abandoned road. It was unseasonably warm and two farmers were busy tapping maples -- one hammering in the spouts, the other working with an electric drill. Thanks to the thaw, the excavation was visible.



The grid lines had weathered the winter intact. A number of potsherds were pushing up through the soil -- an early spring crop of artifacts heaved up by the frost. Dr. S. has a small room in the school for a site lab. He invited me to bring up my class for a weekend in April. We will go.

I found a local history of Billsville at the General Store. Not authoritative, but interesting. It has a reassuring summary: "Billsville has changed little during this century and as it looks ahead, its residents anticipate little innovation." On the way back to Boston I visited the Brattleboro courthouse on a whim. Disappointed not to find any Billsville deeds, but delighted to discover a safe full of hand copied wills, all bound neatly in ledgers. They are certain to contain some interesting problems. I must return with my class.

Beatrice S. Kleppner  
Beaver Country Day School  
Boston, Massachusetts

ANTHRO•NOTES is part of The Anthropology for Teachers Program. This program is funded by the National Science Foundation and conducted by the Anthropology Departments of George Washington University and the Smithsonian Institution. Program Staff: Dr. Alison S. Brooks, Director; JoAnne Lanouette and Ruth O. Selig. If you want information about the program or your name added to the mailing list, write: Ann Kaupp, Department of Anthropology, National Museum of Natural History, Stop 112, Smithsonian Institution, Washington, D.C. 20560.

ANTHRO•NOTES STAFF: Ann Kaupp, JoAnne Lanouette, Ruth O. Selig, editors; Dr. Robert Humphrey, Mr. Robert Lewis, artists.

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# anthro•notes

a newsletter for teachers

1995

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fall 1981

## TRAVELLING TEACHERS

Some lucky teachers had a chance to live anthropology this summer. As former participants from the Anthropology for Teachers Program, they said the discipline's broad perspective helped them appreciate and interpret their experiences.

Jane Schisgall from Montgomery County received a National Council of Social Studies fellowship to visit Japan. The group of twenty fellowship recipients participated in a program designed by the Japanese Institute on Social and Economic Development to expose teachers to current Japan. In two and a half weeks, from 6 a.m. to 10 p.m., the teachers visited three schools, a Honda plant, a Panasonic television studio, a steel mill, fish markets, and shrines. They listened to lectures on economics, religion, and social life. They met "lots of mayors", immersed themselves in Japanese baths, and stayed overnight with a Japanese family. Jane stayed on in Japan ten more days living with a Japanese family. "I also arranged to teach a workshop in children's theater in Korea and was surprised to find myself with 100 five to thirteen year olds all together. But the experience was marvelous because the children had never had creative drama before."



As a result of her adventures, Jane is using the arts to teach third graders about Japan this year. For example, with various artifacts she gathered in Japan, she designed a 'culture box' from which students can gain some basic impressions about the country before they study it in class.

(cont'd.)

Inside: Resources-4, You're Invited-7, Upcoming Events-8, Museum Halls-10

Meeting with more adventures than she had anticipated, Susan Hirtz, a teacher at Green Acres School in Rockville, lived through a military coup in The Gambia and was flown out to Senegal by the U.S. State Department. She travelled to The Gambia as part of CROSSROADS AFRICA, a private, non-profit organization which brings people together to work on labor and construction projects. Susan lived in a house in Birkama with nine other Americans and 10 Gambian men. They all worked for three weeks building a training center for girls so that 13-18 year old girls who were not going on with their formal education could learn home economics and crafts. "I mixed cement, made cement blocks, fetched water, and helped dig the foundation. Although it was hot we never had to work eight hours a day because the supplies and equipment were never adequate. The most difficult part for me was that I never had any privacy. The second most difficult aspect was struggling with different role expectations. The Gambian men resisted cooking, scrubbing floors, and sweeping, arguing that housework was women's work." The military coup at the end of July cut Susan's stay. "It was somewhat frightening to have our house hit by stray bullets, to be confined to the house and grounds, and to feel so lost without television and papers to inform me what was happening. The radio was in the tribal language so I always had to wait for a translation." Yet it was a "fascinating experience to immerse myself in another culture. I liked how different it was -- their technology, attitude toward efficiency, the Moslem religion, and their clearly defined sex roles. I was glad I could live in such a culture, even though I wouldn't choose it. The Gambians were immensely friendly and very generous to us."

Staying closer to home last summer, Judith Elliott, a Fairfax County teacher, visited Southwest Native American reservations and archeological sites. Several years ago she taught a six week unit on Native Americans and arranged for an

exchange of teachers between Fairfax and a reservation school. "For me the trip was marvelous in fulfilling a long-time interest. I saw the sites I had read about, such as Chaco Canyon, Mesa Verde, and pueblo ruins in Aztec, New Mexico. I also visited several reservations, such as the Ute reservation with its pottery and clothing factories. I saw a Navajo irrigation project where the goal is to plant crops on 100,000 acres. I also visited Jemez, Santa Domingo, and Taos."

Margaret Schweitzer had a "great experience" travelling to Mexico with the George Washington University's Mesoamerican Archeology and History field school conducted by Dr. Robert Humphrey. "Imagine a group of fourteen, each with only one suitcase, all travelling in a van and a small car for one month. It was important that we saw the ancient civilizations, the famous excavated sites, and the famous unexcavated sites. Perhaps even more importantly for me personally, we went into small villages and communities where some of my old stereotypes were challenged. It was exciting and strenuous bumping around in a van, climbing up pyramids and, even harder, coming down. I learned so much and wish someone would organize a trip like this on Native Americans next summer."

These four teachers had the opportunity to experience anthropology in a very personal way which undoubtedly will spill over into everyday teaching. We hope other participants from the Anthropology for Teachers Program will tell us about similar experiences, either by writing or calling or coming to one of the evening meetings to share their tales.



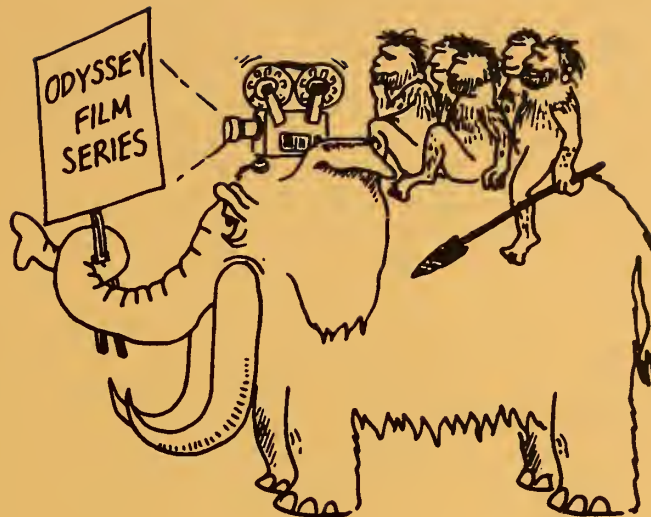


## JOURNEY THROUGH TIME

ODYSSEY, the television series on anthropology and archeology, returns this season. A new 15-week series, beginning September 29, explores a variety of themes including the controversial 3.5 million-year-old skeleton named Lucy; the everyday life of the Moroccan women who don the veil; underwater archeology in the Mediterranean; American Indian moundbuilders; Mayan archeology; and the accomplishments of Margaret Mead.

For teachers interested in incorporating the series into their course curricula, Public Broadcasting Associates has developed an Educator's Guide which includes a film summary, background information, and questions to consider before and after watching the film. In addition, the Guide includes a selected bibliography and information on audio-visual distribution.

The Guide is inserted into ODYSSEY Magazine, which contains informative articles complementing each of the programs. ODYSSEY Magazine can be ordered at bulk rate (minimum order of 5 magazines) of \$1.00 per copy by sending your check with your name, department, college or school address to: ODYSSEY Magazine, P.O. Box 1000, Boston, MA 02118.



The Naturalist Center's policy on its six ODYSSEY cassettes from the 1980-1981 season has changed. In a letter this past summer, we were informed that "...it will no longer be possible for PBA to give permission to the Naturalist Center to loan the ODYSSEY cassettes and make them available to teachers for duplication. Instead, we would like to request that the Naturalist Center invite teachers to view ODYSSEY programs at the Center only. No lending library or duplication services should be provided. This change in policy has come about because, in fact, the permission granted last year creates some conflict with PBS Video distribution activity."

### ODYSSEY SCHEDULE

- Sept. 29: The Ancient Mariners
- Oct. 6: On the Cowboy Trail
- Oct. 13: Lucy and the First Family
- Oct. 20: The Kirghez of Afghanistan
- Oct. 27: Bath Waters
- Nov. 3: Little Injustices: Laura Nader Looks at Law
- Nov. 10: Myths and Moundbuilders
- Nov. 17: The Three Worlds of Bali
- Nov. 24: Masters of Metal
- Dec. 1: Dadi's Family
- Dec. 8: Ben's Mill
- Dec. 15: Margaret Mead: Taking Note
- Dec. 22: Some women of Marrakech
- Dec. 29: Maya Lords of the Jungle
- Jan. 5: We are Mehinaku

ODYSSEY programs will be shown on public television, Tuesday, 9 p.m. EST.

## RESOURCES FOR TEACHERS

Come to the Anthropology Resource Center for Teachers, located in the Naturalist Center at the National Museum of Natural History. It provides an informative and original reference center specifically created for junior and senior high school teachers. Here teachers have the opportunity to supplement their own ideas with those of their colleagues and educators across the country.

The Center offers fifty non-circulating teaching kits, each accompanied by a written guide listing the kit's objectives, materials and activities, as well as an evaluation of its strengths and weaknesses. The curriculum kits have been produced by many different groups such as:

- The National Geographic Society
- The Carolina Biological Supply Co.
- Educational Development Center
- Interact
- Bay Area China/Japan Education Project

These kits contain new and interesting teaching ideas, as well as audio-visual and written materials. Kits are primarily focused on anthropology, covering such topics as:

- archeology
- geography
- Native Americans
- human biology
- Asian and African cultures

Area teachers contributed over forty innovative teaching units to the Center. These units have been bound into booklet form under various headings such as human evolution and ancient civilizations. These anthropology based units are designed for integration into courses such as:

- |                  |                   |
|------------------|-------------------|
| -- geography     | -- biology        |
| -- anthropology  | -- economics      |
| -- earth science | -- psychology     |
| -- history       | -- world cultures |

A unique section devoted to D.C. area resources will help teachers plan museum visits and guest lecturers, as well as collect free information on foreign countries and cultures. This section includes a new Speakers Guide listing speakers who will visit schools to talk on a variety of anthropology related topics. There is also an extensive, up-to-date collection of film and audio-visual catalogs, along with information on inexpensive or free films and filmstrips.

Teaching materials developed for the Anthropology for Teachers Program are in a large notebook. These materials can be read at the Center and some individual items can be requested by calling Ann Kaupp, 357-1592.

Hours at the Naturalist Center are:

Wed.- Sat. 10:30 a.m. - 4:00 p.m.  
Sun. 12:00 a.m. - 5:00 p.m.

(cont'd.)





In the Anthropology Resource Center for Teachers, written guides are attached to each curriculum kit. Below we have reprinted one of these guides to acquaint our readers with both the guide format and an excellent new curriculum unit.

INDIANS VIEW AMERICANS, AMERICANS  
VIEW INDIANS

written by Rachel Reese Sady  
produced by Olcott Forward

Available from: Educational Audio  
Visual Inc., Pleasantville, N.Y.  
10570

Objectives:

- to introduce (and demonstrate) "the idea of cultural bias";
- to present 3 case studies of Indian-White contact from 3 time periods; and
- to enable students to understand both the Indian and White points of view during the period of contact and conflict.

Kit Materials:

- 2 film strips
- 1 record "Indians and Americans"
- 1 teacher's guide
- 5 picture cards
- 22 spirit master dittoes
- 25 "Indian Readings" pamphlets

Age Level: 8-12 grades

Topics: (unit is divided into 3 historical topics)

1. Red Men and White Men  
(Colonial and immediate post-Colonial period)
  - includes readings, recordings and a filmstrip discussing English and French contacts with the Indians.

- students consider the attitudes of White men toward Indians...and try to...understand the Indians' attitudes toward White men.
- the Americans "were convinced that since their own civilization represented progress, the Indian cultures were rightly doomed to extinction." The idea of conflicting cultural values is introduced.

2. The Black Hawk War and Cherokee Removal

- two case histories presented so that students can try to understand the points of view of the Indians involved.

3. The Sun Dance and Ghost Dance

- to aid students in ridding themselves of views that these ceremonies were "barbaric and irreligious" by presenting these customs and institutions in their cultural context.

Activities:

The kit provides booklets of readings, two unnarrated filmstrips, two records, and varied spirit masters including dialogues, newspaper samples, personal accounts, definitions, and writings by figures in history. A detailed teacher's guide suggests numerous paper topics, reports, and projects in addition to questions on the material.

Length of Unit: 1-4 weeks depending on how much of the unit is taught.

Evaluation:

A very complete, versatile and interesting kit written by a well-known anthropologist. The teacher's guide is ample and offers many suggestions including paper topics, reports, and projects. Dittoes are interesting and varied, facilitating students' involvement. A kit to be highly recommended.

## UPDATE: TEACHERS PROGRAM

The George Washington University/Smithsonian Institution Anthropology for Teachers Program entered its fourth year this fall. Seventy-two teachers are enrolled in its year-long graduate course. Three issues of Anthro·Notes are planned. The Anthropology Resource Center for Teachers is updated and expanded. A new series of Evening Lectures is scheduled to bring together past and present program participants. In a day of shrinking funds and falling enrollments, we feel fortunate indeed!

As in past years, the N.S.F.-funded Anthropology program will operate on two levels. Intensively, 72 junior and senior high school science and social studies teachers will spend a year taking a graduate course specifically designed to enable them to integrate anthropology into their various course offerings. The course focuses on eight topics useful in teaching many other subjects such as biology, geography, and world cultures. During 1981-1982 teachers (from the District of Columbia, Montgomery County, Howard County, Prince George's County, Alexandria, Fairfax, and Arlington) will study Primate Behavior; Human Evolution; Civilizations of the Past: Archeology and Ecology; Anthropologists in the Field; American Indians; Growing Up in Africa; Human Variation; and Anthropologists Look at America. Each topic will be the subject of a lecture, experiential teaching activities, a discussion with research scientists at an area resource location, and a workshop during which participating teachers will share curriculum units they have developed on the monthly topic.

On a more extensive level, the Anthropology for Teachers Program reaches approximately 2,000 teachers, anthropologists, school administrators, curriculum developers, and other professionals interested in pre-collegiate anthropology through its newsletter, resource center, and evening lecture series. The mailing list for Anthro·Notes has been computerized facilitating outreach beyond the Washington metropolitan area. Two interns, Jonathan Landman and Jessica Sloane, worked in the Anthropology Resource Center for Teachers this past summer helping to expand and update the center (see article, p.4). During this coming year a written guide and brochure to the Center's collections will be prepared. Finally, a new series of Evening Lectures by distinguished anthropologists will help bring together past and present program participants as well as others interested in pre-collegiate anthropology (see p. 7).

The Anthropology for Teachers Program has recently received national attention through the publication of the sourcebook, Museum School Partnerships: Plans and Programs, edited by Susan Nichols Lehman and Kathryn Igoe. It describes innovative museum programs across the country (see pp. 75-77 "Team Effort Supports Anthropology in Schools, Washington, D.C."). Despite cutbacks in programs and funds, we hope that anthropologists and teachers will not shrink from the continuing challenge of encouraging anthropology through pre-college curricula so that, as Patricia Higgins urges in a forthcoming article, the "discipline's humanistic, scientific, and practical implications will reach the largest possible audience nationwide."





## A.A.A. GEARS UP FOR TEACHERS

The Council on Anthropology and Education is sponsoring several activities of interest to teachers at the 80th Annual American Anthropological Association Meetings to be held in Los Angeles, California at the Statler Hilton Hotel on Wilshire Blvd. Activities described below will be held on Saturday, December 5th so that teachers from the Los Angeles area will be free to attend.

Patricia J. Higgins, Program Chair, C.A.E. Committee 3 (Teaching Anthropology) has organized a paper session "Innovative Teaching in Anthropology: New Approaches for New Students." At this session teachers, museum staff, and anthropologists will describe several archeology and anthropology programs for the pre-college student. An archeology program at the University of Oklahoma's Stovall Museum of Science and History and the Smittown High School Ethnography Project described in Practicing Anthropology (vol. 3, no. 1, Fall, 1980) should spark interest.

Yolanda T. Moses (California State Polytechnic University, Pomona, CA 91768) has organized a day long workshop on multicultural education aimed at teachers, teacher trainers, anthropologists, multicultural program specialists, and school administrators. A series of four workshops will feature demonstrations and hands-on materials to assist teachers integrating multicultural materials into varied curricula. Developing materials and using anthropological media will be stressed at these free workshops for which reservations should be made directly to Dr. Moses at the above address.

## TEACHERS INVITED

The 1981-1982 N.S.F.-funded Anthropology for Teachers Program offers area teachers a new benefit: Evening Lectures by eminent research scholars involved in current anthropological research. These lectures will be held on Thursday evenings at 8:00 p.m. in the Naturalist Center located in the Museum of Natural History, 10th and Constitution Avenues, N.W. They will be open to the general public. A discussion period and wine reception will be included.

Glynn Ll. Isaac (University of California at Berkeley) opens the series on October 29th with a lecture entitled "Studying the Early Stages of Human Behavior: Archaeological Research in the East African Rift Valley." Dr. Isaac, a leading contributor to East African archeology for several decades, is presently co-leader of the Koobi Fora Research Project in Northern Kenya with Richard Leakey.

The second lecture, on December 3rd, will feature Dennis Stanford (Curator of North American Archeology, Smithsonian Institution) speaking on "In Search of Early Man on the Western Plains." Dr. Stanford, Director of the Joint Chinese-American Early Man Program, has excavated several major sites looking for the earliest evidence of human occupation in the New World. Dr. Stanford's work was highlighted in last year's ODYSSEY film "Seeking the First Americans."

Teachers and anthropologists should feel free to encourage their students to attend these public lectures. In addition, we hope past and present participants from the Anthropology for Teachers Program will take this opportunity to meet together again.





## UPCOMING EVENTS

Oct. 10 - Nov. 26: "China's Inner Frontier". From Harvard's Peabody Museum, a black and white photographic exhibition of a unique 1923 expedition into Inner Mongolia. Museum of Natural History.

Nov. 6: "Xian", a film describing the cultural history of the Chinese imperial city and a great archeological discovery -- the burial vault of China's first emperor, filled with 6,000 life-size ceramic warriors. Free film at noon in the Baird Auditorium, Museum of Natural History.

Nov. 9: "The Environment of the City" by Prof. Asa Briggs (Oxford Univ.). Free evening lecture is part of the Smithsonian Institution's Seventh International Symposium "How Humans Adapt: A Biocultural Odyssey." Request tickets by calling 357-2328.

Nov. 11: "Food, Energy and Technology: Perspectives for Developing Countries" by Dr. Edward Ayensu (Smithsonian's Office of Biological Conservation). Same as Nov. 9.

Nov. 17: "Tracing Early Iroquois Political Development" by Dr. William Engelbrecht (Univ. of Buffalo). Anthropological Society of Washington (ASW), Gallery Theater, Museum of Natural History, 8:15 p.m.

Nov. 18: "Linguistics and the Law" by Dr. Roger Shuy (Georgetown Univ.). Room 0124, Skinner Hall, Univ. of Maryland, 8 p.m.

Nov. 18: "Public Archeology and Survey Activity in the Potomac Piedmont" by E. "Mac" Macdaniel. Archaeology Laboratory, Marist Hall, Catholic University, 7:30 p.m.

Nov. 23: "New Excavations at Petra" by Nabil Khairy (Archeologist, Univ. of Jordan). Illustrated lecture of one of the seven man-made wonders of the world, once the capital of Nabataean Kingdom, today the Kingdom of Jordan. For ticket information, call the Smithsonian Resident Associates Program Office, 357-3030.



Nov. 24 - Jan. 3: "Hopi Kachina: Spirit of Life". Exhibit includes Kachina dolls, photographic murals, a color slide show, and three-dimensional models of Hopi rituals. Museum of Natural History.

Nov. 27: "Chaco Canyon", a film from the 1980-1981 Odyssey series, will be shown with the "Living Desert" in Baird Auditorium, Museum of Natural History, at noon.

Dec. 3: "In Search of Early Man on the Western Plains" by Dr. Dennis Stanford (Curator, Department of Anthropology, Smithsonian Institution). Naturalist Center, Museum of Natural History, 8 p.m.

Dec. 5: "Underwater Archeology at the Yorktown Shipwreck". Smithsonian Resident Associates tour by Leon Shertler (National Trust Advisor on Maritime matters) explores the history of the first underwater archeology site located in Virginia to be placed on the National Register of Historic Places. For registration information call 357-3030.

Dec. 9: "Photographing the Hopi Indians" by Donna Longo (Grad. Fellow, American Univ.) A slide-lecture presenting a photographic record of early 20th century Hopi life. For ticket information, call the Smithsonian Resident Associates Program Office, 257-3030.

Dec. 14: "Sign Language Conversations with Chimpanzees" by Dr. Roger Fouts. Lecture, sponsored by FONZ and the Audubon Society, to be held at the Museum of Natural History. For ticket information call 357-3030.

Dec. 15: "Indian Communities in Transition: Middle Connecticut River Valley, 1600-1665" by Dr. Peter Thomas (Univ. of Vermont). ASW meeting, Gallery Theater, Museum of Natural History, 8:15 p.m.

Jan. 9: "Food for Thought: Evidence Concerning the Evolution of Human Diet". All day symposium at George Washington University. Purchase tickets (\$10.00; \$5.00 for students) from the Department of Anthropology, G.W.U., Washington, D.C. 20052; 676-6075. Symposium sponsored by George Washington University and F.R.O.M. (Foundation for Research into the Origin of Man).



**TEACHERS' CORNER:****HUMAN VARIATION IN S.E. ASIA**

How can the study of human variation fit into a geography class? I integrate it into my eighth grade South-east Asia unit, since Southeast Asia is a relatively less sensitive part of the world for my students to begin to understand the physical similarities and differences among peoples. Human variation is little mentioned in previous units on the United States, India, China, and Japan. After the students study the politics, physical features, agriculture, mineral resources, colonialism, and rise of nationalism in Southeast Asia, they focus on the area's diverse cultures and peoples. Towards the end of the unit, I bring my class to the Museum of Natural History's Dynamics of Evolution Hall and Cultures of the Pacific and Asia Hall. The following are some excerpts from the exercises that the students complete. (A copy of the entire unit can be obtained from Ann Kaupp, 357-1592.)

**I. DYNAMICS OF EVOLUTION HALL**  
(2nd floor)

- A. Enter the hall, glancing at exhibits near the entrance. Note especially the cockroach display. Comments?
- B. Proceed to the "tower". Take a few minutes to watch the screen of facial features.
  1. What features are being changed?
  2. Count the changes for one feature. Feature \_\_\_\_\_.  
No. of changes? \_\_\_\_\_.
- C. Examine the displays around the "tower".
  1. What visible features are shown? (ear lobes, tongue rolling, eye color, hair color)

2. Where do you fit into each feature? Where don't you fit?

- D. Natural selection plays a part in genetic inheritance. List the 4 different ways shown that natural selection operates and tell how each way affects a breeding population.

**II. CULTURES OF THE PACIFIC AND ASIA**  
(2nd floor)

There are 6 cases where life size figures of groups of people are shown (Ceremonialism in Samoa, The Maoris of New Zealand, The Dem, The Ifugao of the Philippines, Sindhi Home of Pakistan, and Korean Room). Choose 3 cases to look at carefully. List the title of each case. Describe the physical appearance of the people (stature, shape and color of eyes, nose shape, hair color, skin color). Then describe the cultural features of the people shown in that display (hairstyle, type of clothing, jewelry, head gear, footwear, dwelling, body decorations, objects). Put your information into the chart and make comparisons.

(see chart on following page)





CASE TITLE		PHYSICAL ASPECTS						CULTURAL ASPECTS	
		Stature	Eye	Nose	Hair	Skin		On the Body	Surrounding Objects
1									
2									
3									

Margaret Schweitzer  
Montgomery County Public  
Schools

## NEW FILM CATALOG

ON THE OCCASION OF ITS TENTH ANNIVERSARY, Documentary Educational Resources (D.E.R.) announces the publication of a new guide to 98 films and videocassettes in anthropology and archaeology. Films From D.E.R. is an 8 1/2"x 11" format of 100 pages illustrated with 90 black and white photographs from films and field trips. This complete listing of D.E.R.'s films is supplemented by extensive cultural and historical background material. It includes Africa, The Americas, Asia, Melanesia and Europe; the ODYSSEY series; and films on the San Bushmen, Yanomamo Indians, Alaskan Eskimos, rural New Englanders, North Indian women, and Papua New Guinea Highlanders.

The guide also provides suggested bibliographies; a subject index; and production information, including an appendix of credits, shooting and release dates, and awards for each film. Copies of Films From D.E.R. may be ordered for \$3.00 each from D.E.R., 5 Bridge St., Watertown, MA 02172; (617) 926-0491.

## THE MODERN ZOO: A CRASH COURSE FOR TEACHERS

High school biology teachers from Maryland, Virginia, and the District of Columbia had an opportunity this summer to learn about the modern zoo through a week-long workshop called The National Zoo: Research, Conservation, Education. Developed and taught by the Zoo's Office of Education and assisted by a team of curators and keepers, the workshop concentrated on zoo management and design including lectures on animal husbandry, zoo philosophy, species selection, and exhibit design. Teachers visited behind-the-scenes, talked with curators and keepers, and even designed their own exhibit. During the workshop's final segment, teachers learned about animal research at the Zoo and in the field, and gained practical experience in using check sheets to collect data on animal behavior. Two workbooks, Zoo Observation Training: A Program in Animal Observation for High School Students and Designing for the Great Apes, detailing aspects of the program, are currently being written. These booklets as well as repeat sessions of the workshop may become available to other interested teachers and adults. For more information call Judith White, 673-4724.

ANTHRO·NOTES is part of The Anthropology for Teachers Program. This program is funded by the National Science Foundation and conducted by the Anthropology Departments of George Washington University and the Smithsonian Institution. Program Staff: Dr. Alison S. Brooks, Director; JoAnne Lanouette and Ruth O. Selig. If you want information about the program or your name added to the mailing list, write: Ann Kaupp, Department of Anthropology, National Museum of Natural History, Stop 112, Smithsonian Institution, Washington, D.C. 20560.

ANTHRO·NOTES STAFF: Ann Kaupp, JoAnne Lanouette, Ruth O. Selig, editors; Robert Humphrey, Robert Lewis, Ellen Paige, artists.

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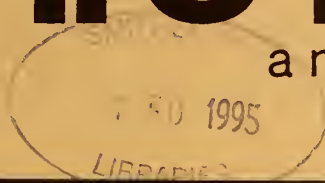
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# anthro·notes

a newsletter for teachers



vol. 4 no. 1

winter 1982

## CREATIONISM ≠ SCIENCE

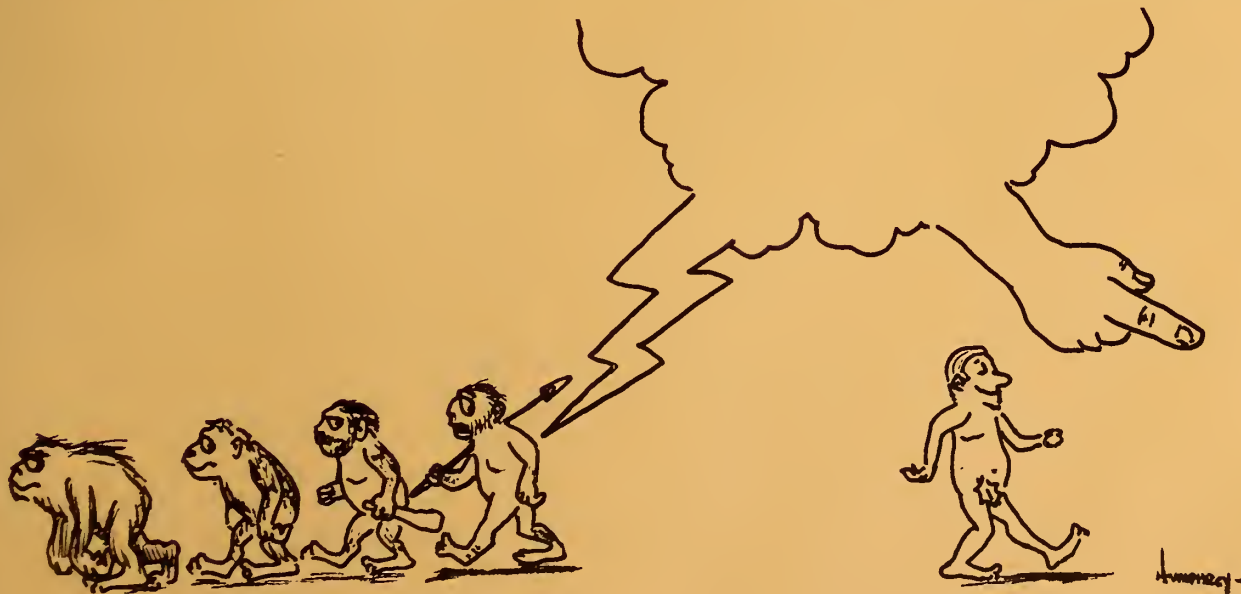
When asked the difference between science and creationism, anthropologist Ashley Montagu answered: "Science has proofs without any certainty; creationists have certainty without any proof." You may agree, and are puzzled by the controversy, but meanwhile students are asking questions, court cases in Arkansas and Louisiana are considering mandated class time for creationism, school boards are being pressured by creationist lobby groups, and some textbook publishers -- bowing to these lobby groups -- are reducing or eliminating the discussion of evolution in high school biology texts.

Sticking our heads in the sand or dismissing the issue as nonsense will not make the controversy disappear. Educating ourselves and our students will help. But to do this it is essential to know what creationism is, and is not.

We need to know creationists' objectives for schools and their methods of argumentation. We need to explain why creationism is not science; and why, in spite of that fact, their arguments persuade some members of the public.

### What is Creationism?

While it is often difficult to elicit clear explanations from creationists (see Moyer), they agree on a literal interpretation of Genesis from the King James version of the Bible. They believe that: 1) the earth is not older than about 10,000 years; 2) the earth, plants, animals, and humans were created by God in six days and humans have a separate ancestry from apes; and 3) the earth's geological formations and sedimentation were caused by a one-year, world-wide flood that deposited layers of



fossils about 6,000 years ago. They believe that no new species have developed since the original primeval period when a supernatural creator used processes of creation no longer in operation and therefore not subject to scientific measurement and study (Callaghan, p.6).

### Creationists and Public Schools

What are the creationists' objectives for schools? Their primary goal is to have creationism qualify as a scientific theory and therefore be given equal time in public schools with evolution. To this end more than 20 states have bills pending that mandate the teaching of a Biblical account of creation. The newest draft of a creationist bill circulating in legislatures eliminates all overt references to God.

Arkansas and Louisiana passed laws in March and July 1981, respectively, requiring that "public schools shall give balanced treatment to creation-science and evolution-science. Balanced treatment to these two models shall be given in classroom lectures..., in textbook materials ..., in library materials..., and in other educational programs in public schools, to the extent that [they]...deal in any way with the subject of the origin of man, life, the earth, or the universe" (Arkansas, Act 590).

The American Civil Liberties Union, on behalf of several groups, filed suit to have the Arkansas Creationism Act declared unconstitutional -- in violation of the First and Fourteenth Amendments to the U.S. Constitution. Their suit argued that the state law (Act 590) "(a) constitutes an establishment of religion, (b) abridges the academic freedom of both teachers and students, and (c) is impermissably vague." The suit concluded with this statement: "By initiating this action, plaintiffs are neither anti-religion nor asserting the final truth of any theory of evolution. Many of the plaintiffs are deeply religious and believe religion is important in personal, family, and community life. Other plaintiffs are science professionals committed to the

scientific method of inquiry, which necessarily rejects all claims to final truth and perpetually tests for flaws in existing scientific theories. All plaintiffs are united in the firm conviction that religion is strengthened by its complete separation from government and that government-supported education in science is strengthened by its complete separation from religious doctrine" (Scientific Integrity 1(5):1, August 1981).

In January, at the end of the well-publicized federal court case, Judge Overton ruled that creationism is not science and that the Arkansas law is unconstitutional.

### How Creationists Argue

It is useful for students to understand how most creationists argue. First, many focus debate by poking holes in the research of biologists, while rarely focusing on proof for their own views. They attack the inconsistencies, the gaps in knowledge, and the controversies of science -- such as the current question about whether evolutionary change has been gradual or jerky. Questions and gaps, they argue, invalidate evolutionary theory.

Second, creationists quote scientists out-of-context. To buttress their arguments, creationists quote other scientists (but seldom biologists) who have remarked negatively on evolution; however, they usually fail to point out that some of these scientists were Darwin's contemporaries.

While creationists are principally anti-evolution, they also try to explain the origin of energy, the universe, and the earth. In doing so they attack anthropology, and also geology, astronomy, nuclear physics, and molecular biology. They must do so because their world view is contradicted by all the physical and social sciences. For example, creationists



argue that geologists (who actually apply many dating techniques) use circular reasoning because they date strata by their fossils and fossils by the strata in which they occur. Creationists attempt to discredit the findings and interpretations of paleontologists. They say that the pre-Cambrian fossil record is virtually blank (for a long time scientists have known otherwise) asserting that this contradicts slow, continuous evolution. Dr. Duane Gish from the Institute of Creation Research notes that Piltdown Man was a hoax and implies that anthropologists, therefore, are vulnerable to believing in hoaxes.

Furthermore, creationists present themselves as scientists; many do have advanced degrees, but usually from obscure Christian fundamental colleges and often in engineering fields. As happened in the Arkansas court case, the "scientists" defending the creationists' stance had not published anything on the subject of evolution and quoted from books written in the 1920's or 1930's.

While trying to argue that creationism is a science like evolution, creationists sometimes switch tactics arguing that evolution is a "religion". Evolution is not a science, they say, because it deals with origins and to say that these origins must be "natural" is as much a religion as to say that they are "supernatural" (Callaghan, p.1). Both evolution and creationism, they say, require acts of faith, since events of the past cannot be tested in a laboratory (Callaghan p.6). They accuse evolution of being only a "theory", using the laymen's meaning of theory as an educated guess, a personal idea. To the scientist, a theory is an ordered system for explaining empirical data. It is based on decades of observation and, when possible, experiments, and has survived the critical analysis of other scientists.

Perhaps the most misleading argument creationists make is that there are only two ways to explain the natural biological world. Creationism, they argue, is the only other view of the origin of life and

the universe besides an evolutionary one. Using this simplistic polarity, any argument against evolution is automatically an argument for creationism. If you believe in evolution, you must be a secular humanist and cannot also believe in religion.

Evolution, however, does not ally itself with any religious denominations. Evolution is accepted by Christians, Jews, Moslems, Hindus, and atheists alike. Science is nonreligious; scientists, however, believe in whatever religion they choose. Yet creationists' polarization and their highly ethnocentric views ignore how many other religious views there are to explain creation and the evolution of life. This is only one of the many reasons religious leaders and scholars from the major denominations in the U.S.A. do not want creationism taught as science. Not only does it bring about an entanglement of church and state, but it also demands a very primitive and restrictive interpretation of Genesis.

### Creationism is NOT Science

Why is creationism not science? Science deals with natural phenomena. It compares alternative ideas about what the world is, how it works, and how it came to be. "Some ideas are better than others, and the criterion for judging which are better is simply the relative power of different ideas to fit our observations. The goal is greater understanding of the natural universe. The method consists of constantly challenging received ideas, modifying them, or, best of all, replacing them with better ones" (Eldredge, p.16).

Creationism is a closed system. The Institute for Creation Research abhors experimentation. Instead, it combs available research to see how evidence might be used to substantiate creationist views. The proselytizing role of their research is not hidden.

(turn to page 13)

## TEACHERS CELEBRATE!

Celebration: A World of Art and Ritual opens at the Renwick Gallery of the National Museum of American Art (Pennsylvania Ave. at 17th St., N.W.) on March 17, 1982, and will be on view until June 26, 1983. This major exhibition is cosponsored by the Office of Folklife Programs and the National Museum of American Art and comprises nearly 600 objects assembled from museum collections throughout the Smithsonian Institution. These artifacts, representing rituals, ceremonies, and festivals from cultures throughout the world can serve as valuable instruments for learning and facilitate an unique collaboration between the classroom and the gallery. The thematic categories of celebrations presented in the exhibition are: life experiences (birth, initiation, marriage, and death), work seasonal cycles, religious/spiritual events, and shared community celebrations.

A special Outreach Program has been designed to help teachers use this exhibition to create enriching experiences for their students. A limited number of Workshops are being held in area schools. Overviews of the Outreach Program and slides of objects in the exhibition are presented. Discipline-Linked Workshops and a reception for educators are being held at the Renwick Gallery. For further information, please call the Outreach Program Director at 357-2531. "Let's Celebrate!" which is a supplementary curriculum packet is being distributed to area junior high/middle schools and a special "Objects Speak" tour can be scheduled for classes by calling the Tour Scheduler at 357-3095.

Credit for Teachers Program has been arranged with Prince George's County Public School system and Fairfax County Public School system and is pending in Washington, D.C.

Florence E. Schwein  
Outreach Program  
Director

## NEW PUBLICATIONS

Two publications of interest to our readers are now available. TEACHING ANTHROPOLOGY TO STUDENTS AND TEACHERS: REACHING A WIDER AUDIENCE, edited by Patricia Higgins and Ruth Selig, provides an up-to-date report on the history and status of anthropology teaching along with case studies describing innovative high school anthropology programs and teacher training efforts. The volume includes a guide to further resources on pre-collegiate anthropology. For copies call Ann Kaupp, 357-1592, or send a check for \$3.00 to the Anthropology Curriculum Project, 107 Dudley Hall, University of Georgia, Athens, GA 30602.

Should your students major in anthropology? Is there a career future for anthropologists? ANTHROPOLOGICAL CAREERS: PERSPECTIVES ON RESEARCH, EMPLOYMENT AND TRAINING, edited by Ruth H. Landman with Linda A. Bennett, Alison S. Brooks, and Phyliss P. Chock, may provide you with some answers. Published by the Anthropological Society of Washington, the volume begins with an overview of the anthropological employment scene in the Washington area describing both traditional and new jobs held by more than 200 anthropologists. The papers which follow describe research results and some of the novel settings in which anthropologists work, together with the ways in which anthropologists are being trained towards new careers. Order your copy from A.S.W., P.O. Box 57400, Washington, D.C. 20037. Include a check payable to A.S.W.; \$8.95 per copy plus \$1.00 for postage and handling.





## TEACHER'S CORNER: ETHICAL DILEMMAS

This group discussion activity, developed for the George Washington University/Smithsonian Institution Anthropology for Teachers Program, can be used to introduce or conclude a unit on social change, culture conflict, technology, or anthropological theory and method. The format can also be used as a model for any ethics discussion in the classroom.

### I. Objectives:

1. students will recognize the difference between a choice based on facts and a choice based on values;
2. students will gain some familiarity with the dilemmas anthropologists face in their fieldwork; and
3. students will gain some understanding of their attitudes or their culture's attitudes toward intervention and change.

### II. Procedure:

1. Choose 4-5 students to join you in a discussion of case #1. Arrange this group in front of the class so that your leadership role and the group discussion can be observed.

2. Read the case aloud and then ask the group to analyze the given situation.

- a) Ask the group to define exactly what happened? What information is missing?
- b) What issues and problems does the case raise and why?
- c) What are courses of action the anthropologist could follow and what would be the negative and positive consequences of each?
- d) What assumptions are being made by the anthropologist? What values are being expressed?
- e) How would "you" have acted in the same situation?

3. As a group leader demonstrate your role by primarily a) asking questions, b) clarifying students' answers, c) linking together various responses, and d) summarizing the insights gained. Be sure to point out to the students that there are no right or wrong answers. They, also like the anthropologist in the field, may not have all the information they would like to have before making their decisions.

4. Divide the class up into 4-5 groups and have each person from the initial demonstration group act as a group leader. Assign each group a case to analyze for 15 minutes, using the same approach outlined above.

5. One person from each group presents a summary of their case and the group's conclusions. As a whole class the teacher and students might consider:

- a) How and why do cultures differ in their values?
- b) How can ethical dilemmas shape or modify fieldwork research?
- c) What, if anything, can be done to prevent anthropologists from getting into ethical binds?
- d) What questions need to be asked before introducing change into a culture?

### Case 1

Mary Thompson (pseudonym) had been conducting fieldwork in a Southeast Asian community for 18 months. Her house was ideally located on the edge of the village plaza, allowing her to readily observe daily activities which took place in the plaza. In addition to gatherings of women who shared food preparation tasks and talk groups of men working individually on carvings, the plaza was regularly a gathering place for men at night.

(over)

One night while Thompson was working on some statistical problems in her house, she was distracted by loud, seemingly argumentative discussions in the plaza. When the noise of argument reached a high pitch, she decided to investigate the situation. Just as she stepped from her doorway, she saw one of the men in the group of five angrily raise his machete and deliver a deadly blow to another -- Tom (pseudonym) -- in the group. Stunned silence fell over the other three men, as they watched their companion quickly bleed to death before their eyes. Moments later people from other homes began moving into the plaza in response to the wailing which came from the man who had wielded the machete. Mournful crying and wailing was carried throughout the village. The family members of the dead man carried him to their home and began the funeral preparations. The next evening, Tom was buried. The man who had dealt the deadly blow was allowed to participate in the funeral and to make a death payment to the family of the deceased.

Two days after the funeral, three regional policemen came to the village. As part of a new governmental program designed to reduce blood feuds, the regional authorities now regularly sought to arrest and jail people who were involved in killings. They had heard about the recent death.

They began questioning the villagers in an attempt to determine if Tom had been "murdered." Thompson had written a detailed description of the events of the night of Tom's death in her notebook which contained a running record of village activities.

Since she knew the police would question her, should she quickly tear out and destroy the pages in her notebook where the events were recorded? When questioned by the police, should she, like the other villagers, plead ignorance concerning the killing?

## Case 2

Roger Thompson had recently spent 18 months in Melanesia with the Grand Lake people. When he was invited to contribute a chapter to a colleague's book on myth, Roger decided to discuss one of the Grand Lake myths about the origin of certain magical powers. The story would illustrate a point that he wished to make about the authority of the shaman in the lives of the people.

After carefully translating the myth, Roger reviewed his field notes to check a few details. As he was turning the pages in his notebook, he discovered that two of them were stuck together. When he separated them, he found that the second page, which had been concealed by the first, contained a few short notes describing how he had come to record the myth, the details of which he had forgotten. According to his notes, he had persuaded the leading shaman in the village to recount the myth provided that Roger promised never to reveal it to anyone else. Suddenly Roger wondered whether he was violating a confidence by contributing a discussion of this myth to his colleague's book.

## Case 3

Terry Kelly (pseudonym) received a NIMH grant for research in the Western Tropics. As part of her personal gear, she took along a considerable amount of medication which her physician had prescribed for use, should Kelly find herself in an active malaria region. Later, after settling into a village, Kelly became aware that many of the local people were quite ill with malaria. Since she had such a large supply of medication, much more than she needed for her personal use, should she distribute the surplus to her hosts?



## Case 4

Ray Davidson listened in amazement as his student, Frank Sawyer, recounted his reactions to his National Foundation interview. Sawyer had applied for funds to support research for his dissertation and had just recently been interviewed by a foundation representative with regard to his application. He sat across the desk from Davidson, laughing and obviously enjoying his success in "faking out the National Foundation people." Sawyer had flunked his oral exams during the spring term but did not reveal this to his interviewer. Instead, Sawyer told him that he was scheduled to take his orals in the late autumn. The interviewer hinted that Sawyer was very likely to receive funding if he passed his orals.

After Sawyer left the office, Davidson wondered what he should do. Although Sawyer had failed his oral exams the first time, he was a good student, and Davidson felt that he would pass the next time. However, he was concerned whether a student with this attitude toward the truth would become a reliable scientist, and whether he might be tempted to skew his data to support his hypotheses. Should Davidson inform the National Foundation representative of Sawyer's deception?

## Case 5

M was a disruptive student activist in the sixties, when it was the fad to be a disruptive student activist, but never to the point of "trashing" the administration building or placing stink bombs in the air-conditioning system. I am asked now to evaluate M for a government position. How much ought I to divulge?

## Case 6

Laura Bohannon in her book RETURN TO LAUGHTER, describes a dilemma when smallpox begins to rage through an African country. She has been vaccinated but cannot get the people to go to the hospital to get vaccinated by Western doctors. Their way of coping with it, is to banish a person from the tribe as soon as a person contracts smallpox. If Bohannon goes after the banished man to give him food and returns without having smallpox she will be considered a witch. This will mean she can no longer study these people effectively. Would you stay in the tribe or go help the man?



## Bibliography for Ethical Dilemmas

(A full bibliography on Anthropological Fieldwork can be obtained from the Editors of Anthro·Notes by calling 357-1592 or writing Ann Kaupp, Department of Anthropology, Smithsonian Institution, Washington, D.C. 20560. See also Anthro·Notes 3 (Spring 1981) for bibliography on fieldwork.)

AAA NEWSLETTER. American Anthropological Association, 1703 New Hampshire Ave., N.W., Washington, D.C. 20009.

1981 issues contain a series on ethical dilemmas prepared under the auspices of the Committee on Ethics. (cases 1,3,&5)

"AAA Principles of Professional Responsibility", AAA NEWSLETTER, vol. 11, no. 9, (1970).

The principles cover responsibilities to those studied, the public, the discipline, students, sponsors, one's own government, and host government.

Appell, George N. ETHICAL DILEMMAS IN ANTHROPOLOGICAL INQUIRY: A CASE BOOK. Waltham, MA: Crossroads Press, 1978.

An excellent resource of over 80 cases designed to help sensitize students and anthropologists to the moral consequences of social inquiry. Cases cover such areas as dealing with threats of aggression; intervening in infanticide; perceiving of illegal activities; dealing with theft, medical emergencies, and missionaries; and handling problems in urban ethnic research. (cases 2 & 4)

Bowen, Elenore S. RETURN TO LAUGHTER. New York: Doubleday, 1964.

Laura Bohannon, using a pseudonym, vividly and compassionately describes the joys, problems, and ethical dilemmas of her fieldwork with the Tiv.

Ferne, Elizabeth. GUESTS OF THE SHEIK: AN ETHNOGRAPHY ON AN IRAQI VILLAGE. New York: Doubleday, 1969.

A very absorbing narrative of Fernea's two-year stay in a rural village in southern Iraq and her analysis of the role of women.

Freilich, Morris, ed. MARGINAL NATIVES AT WORK: ANTHROPOLOGISTS IN THE FIELD. Cambridge, MA: Schenkman Publishing Co., 1977.

Five anthropologists describe their personal experiences collecting data and suggest possible solutions for field problems.

Powdermaker, Hortense. STRANGER AND FRIEND: THE WAY OF AN ANTHROPOLOGIST. New York: W.W. Norton and Co., 1966.

In a very readable and dramatic style, the author describes the four major field experiences of her career: 1) Lesu, in the South Pacific (1929-30); 2) a rural Mississippi community (1933-34); 3) Hollywood (1946-47); and 4) an African mining town in Northern Rhodesia, now Zambia (1953-54).

Wax, Rosalie. DOING FIELDWORK: WARNINGS AND ADVICE. Chicago: Univ. of Chicago Press, 1971.

A very readable and thoughtful book that explores the problems of fieldwork in Japanese-American Relocation Centers, on Thrashing Buffalo Reservation, and among the six "friendly" tribes.

Weaver, Thomas, et al., eds. TO SEE OURSELVES: ANTHROPOLOGY AND MODERN SOCIAL ISSUES. Glenview, IL: Scott, Foresman and Co., 1973.

A provocative and thoughtful reader that discusses the contributions of anthropology to contemporary social issues. It addresses the myth of the melting pot, anthropology and the Third World, race and racism, poverty and culture, schooling, violence, our troubled environment and changing the system. It also gives the code of ethics for anthropologists.



## UPCOMING EVENTS

March 3 - April 15: "The Vanishing Race and Other Illusions: A New Look at the Work of Edward S. Curtis." Exhibit in Evans Gallery, National Museum of Natural History.

March 12: Film: "In the Land of War Canoes" by Edward C. Curtis. Introduction and comment on film of Kwakiutl culture by William C. Sturtevant (Curator, National Museum of Natural History). Baird Auditorium, Museum of Natural History, 12 noon.

March 15: "Lost Cities: Palenque" by George E. Stuart (Archeologist, National Geographic Society). First lecture of a series of luncheon and evening talks sponsored by Smithsonian Resident Associates. For further information call the Program Office at 357-3030.

March 16: "The Hans Egede Mission: 1721-1728, and Scandinavian Acculturation of the West Greenland Eskimo" by H.C. Gullov (Danish National Museum). Anthropological Society of Washington (ASW) meeting, Gallery Theatre, Museum of Natural History, 8:15 p.m.

March 23: "The Mysteries of Martin's Hundred" by Ivor Noel Hume (Resident Archeologist of Colonial Williamsburg). Discussion of the oldest British domestic settlement discovered in America. For ticket information call Smithsonian Resident Associates Program Office at 357-3030.

March 24: "Paleo-Demography of Teotihuacan" and "Economy and Subsistence at Tlajinga III, Teotihuacan" by Rebecca Storey and Randolph Widmer. Archaeology Lab, Marist Hall, Catholic University, 7:30 p.m.

March 26: Films: "The Rise of Mammals" and "The Marsupials" from LIFE ON EARTH series. Baird Auditorium, Museum of Natural History, 12 noon.



LIFE ON EARTH series on evolution, started January 12, is shown on PBS, Tuesdays at 8 p.m., and is repeated Saturdays at 7 p.m. The Natural History Film and Lecture Series shows the edited 20 minute versions, approximately two each week, Fridays at 12 noon in the Baird Auditorium, Museum of Natural History.

March 31: "Is Structuralism Possible in Historical Archaeology?" by Mark P. Leone. See March 24.

April 16: Films: "A Life in the Trees" and "The Primates" from LIFE ON EARTH series. See March 26.

April 20: "Early Native American-European Contacts: East Coast Overview" by Prof. David Quinn (St. Mary's College). ASW meeting, Gallery Theatre, Museum of Natural History, 8:15 p.m.

April 23: Films: "Upright Man" and "The Compulsive Communicators" from LIFE ON EARTH series. See March 26.

April 28: "Interrelations of Religion and Hunting in Cree Society" by Dr. Regina Hertzfeld and Beth Chambers. See March 24.

## TEACHERS AT AAA

Over 100 teachers, educators, and anthropologists attended an all-day workshop on Multicultural Education held at the American Anthropological Association meetings in Los Angeles on Saturday, December 5.

The day's activities began with a paper session organized by the Council on Anthropology and Education's Committee 3 (Teaching Anthropology) on "Innovative Teaching in Anthropology: New Approaches for New Students". Peter Tirrell of the University of Oklahoma's Stovall Museum described several archaeology programs for pre-college students designed by the museum's education staff in cooperation with archeologists and teachers. Patricia Bacot, representing the team of Bacot, Sylvia Flores, and Dolores Reed-Sanders, explained how they had incorporated anthropological content and inquiry methods into their NSF Teacher Development Project on Multiculturalism for teachers in the Rio Grande Valley of southern Texas. Suzanne Spina talked about the rationale, development and results of the Smithtown (New York) High School Ethnography project and called for the establishment of a national network of teachers and classes involved in the ethnographic study of student culture. Finally, Diane Kagan described her use of ethnographic research projects for non-traditional students at Santa Rosa (California) Community College.

Discussant Carol Mukhopadhyay, former secondary teacher and Assistant Professor of Anthropology at California State University, identified several themes linking the paper presentations: the value of collaboration between teachers, college-based anthropologists, and museum personnel; the value of experiences involving students directly in anthropology; the value of ethnographic and archeological research for deepening understanding of different groups and for undermining student stereotypes; the importance of public contacts beyond the school; and an emphasis on the use and teaching of scientific inquiry.

The second discussant, Courtney Cazden of the Harvard Graduate School of Education and President of the Council on Anthropology and Education (1980-81), focused upon the relationship of the papers presented to the overall topic of the workshop, Multicultural Education. "If we take the term 'culture' in multicultural education seriously," Cazden said, "we must then give more consideration to the topics and concepts covered in the papers. If we, as educators, want the scientific method to be used in thinking about human life, then we must use anthropological materials and inquiry processes." Anthropologists, she urged, must become more involved in teacher training and in helping teachers use these materials and processes in multicultural classrooms.

Following the paper session, the workshop continued with several sessions providing materials and specific suggestions for integrating an anthropological perspective into a variety of classroom contexts. Dr. Valesta Jenkins of Berkeley described ways to utilize cultural concepts from Africa, South America, and the Middle East into mathematics programs. Dr. Richard Jacobs took participants through a discussion of ethnocentrism and cultural relativism to help them introduce these same concepts to students.

In the afternoon, Ms. Jo Bonita Perez, Educational Consultant for the Los Angeles County Schools, presented a workshop entitled "Cross-Cultural Perspectives in the Development of Language Arts and Science Programs." Ms. Perez shared several modules and a science program she had developed for the L.A. school system. A final session, "The Use of Media in Multicultural Education", was led by Dr. Denise Lawrence, Director of the Center for the Study of Visual Anthropology at the University of Southern California, and Ms. Pat Seeley, Consultant, Los Angeles County Schools. Dr. Law-



rence showed a videotape on religious home shrines in Mexican American culture, explaining ways the videotape could be integrated into social studies or ethnic studies programs. Ms. Seeley showed a videotape on Africa based on an out-dated film which she uses to develop critical viewing skills in students who analyze the film's stereotypes and ethnocentrism.

Plans are presently underway to make the papers and workshop materials available for wider distribution; details will be announced in a future issue of Anthro. Notes.

Dr. Patricia Higgins,  
S.U.N.Y. -Plattsburgh  
(Organizer, paper session)

Dr. Yolanda J. Moses,  
California State Polytechnic University  
(Organizer, workshop session)

## IF PSYCH CAN ...

In order to better determine what efforts the Council on Anthropology and Education (C.A.E.) or the American Anthropological Association (A.A.A.) might undertake to further precollege anthropology, a report, "Involvement in Precollege Psychology, A Model for Anthropology," was prepared by C.A.E. Committee #3 (Committee on the Teaching of Anthropology). This report summarizes the history, accomplishments, and organization of the American Psychological Association's (A.P.A.) efforts to promote the teaching of psychology at the secondary level.

According to the U.S. Registry of Junior High and Senior High School Social Science Personnel published by the National Science Teachers Association, there were 9,658 teachers of psychology in 1981, and 3,929 teachers of anthropology. As psychology is the largest member organization among the social sciences (65,000 members), perhaps these statistics are not surprising. Although the number of anthropology teachers is far smaller than that of psychology, the number is nevertheless substantial and growing (in 1976 the registry showed 3,619). Perhaps this is a good time to assess what the A.P.A. has done for secondary psychology teaching over the past three decades in order to better weigh the alternatives facing anthropology today. Below is reprinted the concluding section of the report.

"Since the 1950's the American Psychological Association has had a commitment to precollege psychology. During the 1960's that commitment encouraged curriculum development, teacher training, and long-range planning for A.P.A.'s involvement in secondary school concerns. In 1963 an affiliate program within the A.P.A. was established; in 1968 a clearinghouse for materials dissemination took shape; and in 1971 a teachers' newsletter began. Since 1968 paid professional staff in the national office supported the increased activities of the A.P.A.'s Committee on Precollege Psychology. In the 1970's this combination of Committee and paid staff produced impressive and continuing accomplishments in the areas of publications, curriculum development, teacher training and certification, and general service to the growing number of high school psychology teachers.

In some ways precollege anthropology appears to be at a stage similar to that of precollege psychology at the beginning of the 1960's, when the A.P.A. decided to make a firm commitment to encourage precollege

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psychology. Increased awareness of anthropology nationwide has produced a growing interest on the part of teachers and students in incorporating more anthropology at the precollege level. There have been a few workshops and precollege teacher development in science programs in anthropology funded through the National Science Foundation. Some curriculum development has taken place, and there are now many materials available for the secondary classroom. In addition, the Washington, D.C. Anthropology for Teachers Program has produced some results similar to those of the A.P.A.'s Committee on Precollege Psychology: a newsletter Anthro·Notes now reaches 2,000 teachers and others interested in precollege anthropology; and the Anthropology Resource Center for Teachers functions somewhat like the early psychology Clearinghouse, bringing materials together and furthering their dissemination through bibliographies, listings and guides. Staff from the program provide courses for teachers and act as a resource for inquiries regarding secondary anthropology which increasingly come from all over the country.

Much more needs to be done. In particular, there is a serious need for an up-to-date high school textbook in anthropology or a combination anthropology/sociology text. Survey work is needed to assess the status, state by state, of anthropology in the secondary classroom and of the preservice and inservice training of teachers. Surveys of the certification requirements are also needed in order to develop a plan to increase the visibility of anthropology at all levels of teacher training.

Finally, a crucial and continuing need exists for the American Anthropological Association to make a commitment at the national level to the encouragement of precollege anthropology. At a time when the profession is concerned with enabling its ranks to grow and to incorporate new direc-

tions for its members, the association should direct some attention to encouraging a broader understanding of anthropology through its wider acceptance in the precollege curriculum. A staff member in the national office should establish a program to promote the teaching of anthropology at all levels of the precollege curriculum.

(This report was submitted to the C.A.E. Board of Directors at the 1982 A.A.A. meetings in L.A. Copies may be obtained from Ruth Selig, Department of Anthropology, Smithsonian Institution, Washington, D.C. 20560.)

#### FREE MATERIALS

The Anthropology for Teachers Program is presently preparing a packet of resource materials for teaching anthropology. This packet will be available free-of-charge in May. Write to Ann Kaupp, Department of Anthropology, Smithsonian Institution, Washington, D.C. 20560 or call 357-1592 in order for your name to be placed on the distribution mailing list. Materials in the packet will focus on eight anthropology topics which can be integrated into a wide variety of pre-college science and social studies classes: Primates, Human Evolution, Civilizations of the Past (Archeology), Anthropological Fieldwork, Growing Up in Africa, Native Americans, Human Variation, and Looking at America. A request can be made for the whole packet or any selection of topics.



(from page 3)

Creationists do not submit papers to scientific journals, or attend scientific conferences, or participate in the other procedures and methods of scientists. Creationism is not able to make any predictions and cannot be disproven because it does not depend on natural, observable phenomena, but on the supernatural. Acts of God elude scientific analysis and cannot be measured by application of scientific methods.

Creationists argue that their "theory" of faith is true and must be true. This is antithetical to the basis of scientific inquiry. Instead of revising ideas to reflect the world as it is observed, they start from the Bible. "To be unwilling to revise a theory to accommodate observation is to forfeit any claim to be scientific. For it is not facts or theories that are essential to the growth of science but rather the process of critical thinking, the rational examination of evidence, and an intellectual honesty enforced by the skeptical scrutiny of scientific peers. By these standards creationism is not science" (Science 81, December, p.57).

Ask yourself, how would you teach creationism as science if an "equal time" law were passed in your state? What is "equal time"? What would you say is the "equal" evidence? How would you scientifically verify events in Genesis?

#### Why Creationism Persuades

Creationism has a certain appeal precisely because people can believe in it fervently. In addition, Americans are open to arguments for "equality" and "fairness". Creationists sound persuasive when they argue that precluding creationism from science classes is unfair and represents a censorship of free speech. Many people do not realize that creationism is not science and that creationism as a religion is not being censored.

Some people think a school should be a marketplace of ideas in which students choose what is "right" and "wrong". But teachers include those theories and data that have the most credibility, research, and acceptance by the scientific community. There are many out-dated ideas that are not taught, such as the earth is flat or that the sun revolves around the earth.

With the explosion of biological knowledge in the last 20 years and unfortunately with the absence of much of this new information from high school textbooks, a gap in understanding exists today between biologists and the public. If people do not have a solid science background, they can misunderstand what true science is about, and may easily accept pseudoscience.

Education often gives the false impression that science is a rigid obedience to paradigms. Science in many secondary schools encourages far less critical thinking than do the humanities. As a result, students often see science as an absolutist discipline, one that may seem little different in tone from the absolutist quality of creationism.

And, of course, creationists, with their extensive use of the media, can also touch a responsive chord among those who feel society is too secular, that schools are not reinforcing the religious values taught at home, and that scientists "control" their lives too much.

But the panacea to those concerns is not creationism. It will not help students to teach them Biblical literalism as a science, when ways of knowing and terms are confused, when the senses are denied, and when the least knowledgeable people are mandating textbook and curriculum content.

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As Niles Eldredge, Curator of the Department of Invertebrates at the American Museum of Natural History in New York, wrote: "The only real defense against such tactics lies in the true application of the scientific enterprise -- the trial-and error comparison of ideas and how they seem to fit the material universe. If the public were more aware that scientists are expected to disagree, that what a scientist writes today is not the last word, but a progress report on some very intensive thinking and investigation, creationists would be far less successful in injecting an authoritarian system of belief into curricula supposedly devoted to free, open rational inquiry into the nature of natural things"(p.20).

### Bibliography

Callaghan, Catherine A. "Evolution and Creationist Arguments," THE AMERICAN BIOLOGY TEACHER 42 (October 1980): 422-427.

Over 20 different arguments that creationists use to attack evolution are given and refuted, in an easy to use form for the classroom.

"The Creationists," SCIENCE 81 (December 1981): 53-60.

The supplement contains two helpful articles -- "Creationism as Social Movement" by John Skow and "Creationism as Science" by Allen Hammond and Lynn Margulis.

Eldredge, Niles. "Creationism Isn't Science," THE NEW REPUBLIC (April 4, 1981): 15-20.

In an excellent article, some of the major differences between creationism and science are explained as well as a refutation of creationists' criticisms of evolution as scientific theory.

Godfrey, Laurie. "The Flood of Anti-evolutionism," NATURAL HISTORY (June 1981): 4-10.

Describes briefly the development of creationist groups since 1963, their methods of argumentation, and most importantly, how they are using the punctualists' ideas incorrectly to attack evolution.

Lewin, Roger. "Creationism on the Defensive in Arkansas," SCIENCE 215 (1 January 1982): 33-34; "Where is the Science in Creation Science?" SCIENCE 215 (8 January 1982): 142-146; "A Tale With Many Connections," SCIENCE 215 (29 January 1982): 484-487.

Moyer, Wayne A. "The Implications of Balanced Treatment," paper presented at the Charlotte meeting of the North Carolina Science Teachers Assoc., November 13, 1981. For a copy contact, Executive Director, National Association of Biology Teachers, 11250 Roger Bacon Dr., #19, Reston, VA 22090. The NABT also publishes the newsletter, SCIENTIFIC INQUIRY, which focuses on the court cases, challenges to school boards, and actions teachers can take.

"The Nature of Knowledge," THE ECONOMIST (26 December 1981): 99-104.

An excellent article that cogently provides a history of scientific knowledge with synopses of the impact of Popper's, Kuhn's and Laudan's philosophies, the role of induction and deduction, the existence of scientific methods, the difference between physics and biology, and the nature of scientific truth.

JoAnne Lanouette



## MIDDLETOWN

Beginning on March 24, 1982 and continuing for six consecutive Wednesdays, a new television series "Middletown" will explore the contemporary condition of the American dream. Made by award-winning documentary filmmaker Peter Davis, "Middletown" was inspired by the watershed community studies of Robert and Helen Merrell Lynd. During the 1920's and 1930's, the Lynds went to Muncie, Indiana to probe the basic structures and values of American life. They code-named the community Middletown. The TV series focuses upon the same six areas studied by the Lynds: politics, leisure, work, religion, marriage, and education, with a separate film devoted to each.

In a recent letter to Anthro·Notes, Davis explained:

I am trying, in the Middletown films, to understand American Society just as Robert and Helen Lynd did in the Middletown books. My

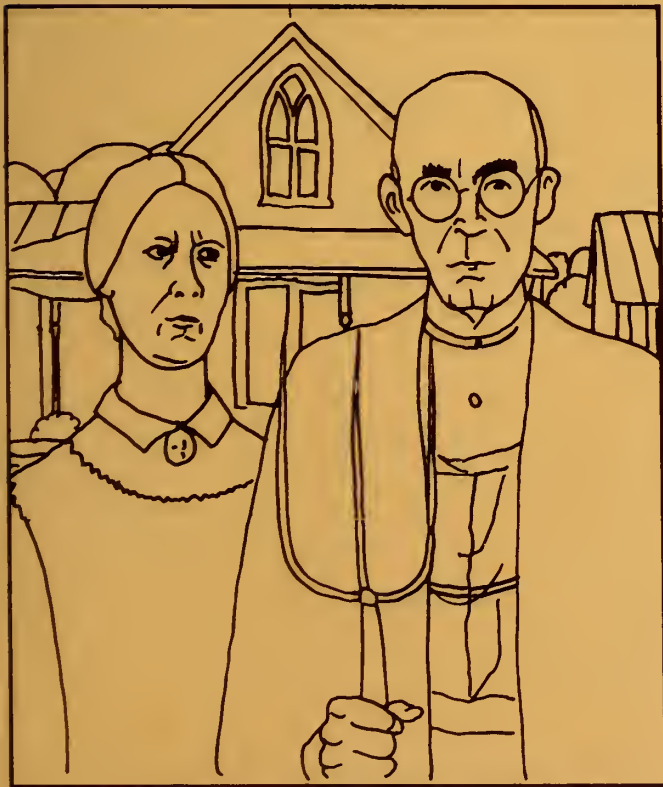
colleagues and I are telling stories about Muncie using the crises and confrontations of everyday life to explore the meaning of America in six areas frequently studied by anthropologists.

Study Guides will be available for \$1.50 (26-100 copies \$1.25) from Cultural Information Service, P.O. Box 92, New York, New York 10156; (212) 691-5240.

## ASW

Are you interested in free stimulating lectures on a variety of anthropology topics, and perhaps dinner with the speaker beforehand? Would you like to receive a newsletter giving you anthropology news in Washington? Would you enjoy a special Saturday symposium, a potluck supper, a gala exhibit reception? Then you should become a member of the Anthropological Society of Washington (ASW). The oldest anthropology society in America was founded in 1879 by John Wesley Powell, then Director of the Smithsonian Institution's Bureau of American Ethnology. The Society continues to "promote the scientific study of man" through its newsletter, publications, and meetings held the third Tuesday of each month. Membership is open to anyone interested in anthropology.

To join ASW, simply write a check for \$10.50 payable to ASW and send it with your name and address to ASW, P.O. Box 57400, Washington, D.C. 20037. By joining now, you will receive (free-of-charge) the new ASW publication ANTHROPOLOGICAL CAREERS: PERSPECTIVES ON RESEARCH, EMPLOYMENT AND TRAINING (see p.4 for description).



APOLOGIES TO GRANT WOOD

ANTHRO•NOTES is part of The Anthropology for Teachers Program. This program is funded by the National Science Foundation and conducted by the Anthropology Departments of George Washington University and the Smithsonian Institution. Program Staff: Dr. Alison S. Brooks, Director; JoAnne Lanouette and Ruth O. Selig. If you want information about the program or your name added to the mailing list, write: Ann Kaupp, Department of Anthropology, National Museum of Natural History, Stop 112, Smithsonian Institution, Washington, D.C. 20560.

ANTHRO•NOTES STAFF: Ann Kaupp, JoAnne Lanouette, Ruth O. Selig, editors; Robert Humphrey, Robert Lewis, Ellen Paige, artists.

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## PRE-COLUMBIAN SETTLERS: FACT OR FANCY

Native Americans are descendants of the "Lost Tribes of Israel". Meso-, Central, and South American pyramids, mummies and hieroglyphs demonstrate American Indian origins from Egypt. Celto-Iberians preceeded Columbus' arrival in America by 2,000 years! Ground drawings on the Nasca Plain in Peru clearly indicate an ancient landing strip used by visiting spacemen. A vanished European race preceeding the Indians built the huge earthworks and mounds dotting the eastern United States.

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What do these statements have in common? First, they are claims regarding the pre-Columbian contact and colonization in the Americas. Second, these claims have not been validated by individuals trained and experienced in archeological research. And third, they are accepted as fact by a considerable segment of the public as well as by some in the anthropological profession. There are differences, of course, in that some are well meaning misinterpretations of evidence while others are based on hoaxes or conscious misrepresentations.

What is wrong with claims that, using cultural trait resemblance such as pyramids, suggest historical contact between the Old and New Worlds? Scholars point out several difficulties. 1) Resemblances are taken out of context in time and space. 2) While there is a similarity of form, there may be differences in meaning and function. 3) Only similarities are emphasized, never differences. 4) No attention is paid to the implications of such claims beyond their narrow focus. Unfortunately, racism is an element that still "rears its ugly head." Europeans considered Native Americans too "primitive" to be capable of such impressive cultural achievements as moundbuilding or massive Nasca ground drawings. Rather, these sophisticated technological creations must be of European origin.

North American culture history is not as well known as might be supposed. Historians have concentrated on individual histories and political events rather than on regional and ethnic studies, American material culture, and architectural history. For instance, a number of stone structures, attributed to an ancient culture by Barry Fell, were no mystery at all to local residents who identified them without question as root cellars. The stone structures are associated with 18th and 19th century house structures and food storage technology. Barry Fell, a marine biologist and self-proclaimed expert in ancient languages, has attempted to demonstrate that ancient peoples -- the Phoenicians, Carthaginians,

and Egyptians -- had contact with the New World long before the brief visits of the Norsemen in A.D. 1000. Fell's claims are based on stone inscriptions and stone structures found primarily in northeastern United States. Linguists, archeologists, and historians have shown these "inscriptions" to be for the most part, random marks or "writing" created by hoaxers, a not uncommon form of practical joke in the 19th century. But Fell, who has a large and dedicated following, continues to ignore archeological, historical, and other linguistic evidence.

In his book Fads and Fallacies in the Name of Science (New York: Dover, 1957), Martin Gardner describes traits shared by pseudoscientists. First, a pseudoscientist works in almost total isolation from the professional ranks, and therefore, is outside the channels through which new ideas are introduced and evaluated. Second, a pseudoscientist has a tendency toward paranoia which is likely to be displayed in five ways: 1) considering oneself to be a genius, 2) regarding one's colleagues as ignorant blockheads, 3) believing oneself to be unjustly persecuted and discriminated against, 4) having strong compulsions to focus one's attacks on the greatest scientists and best-established theories, and 5) writing in complex jargon. An example of a pseudoscientist is Augustus Le Plongeon, a 19th century French adventurer, who spent his life unrelentingly determined to demonstrate ancient Egyptian contact in Central and South America. Robert Wauchope wrote of Le Plongeon, "he assumed unquestioningly that his own identifications were correct, [and] instead of questioning his own theories when he confronted a mass of contrary evidence, he merely admitted bewilderment and walked calmly away from the subject, still convinced of his original hypothesis" (1962:18).

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Unscientific claims regarding the prehistory of the Americas continue to receive publicity. Interest in what has been described as "cult archeology" appears akin to religious fervor (see Cole's article). One of the most frequent inquiries received by the Smithsonian's Department of Anthropology concerns the Book of Mormon and the hypothesis that the Lost Tribes of Israel help explain the origin of the American Indians. Pseudoscientists' revelations are appealing to the public and newsmedia alike, as is evident in Erich von Däniken's Chariots of the Gods? and other books selling over 40 million copies. For most of the general public, science is abstract and dull while pseudoscientists' spectacular interpretations stimulate the imagination.

What do these claims have to do with teachers, students, scientists, and the general public? It is the responsibility of educators to teach logical thinking and the process of critical analysis in order to create an educated, not a gullible, public. Scientists must keep the public informed of their work. They should not ignore what they may feel are fantastic and erroneous claims while the public is being swayed by the titillating media. Assertive counter-arguments by scientists might help stifle the speculations before they ferment in the minds of the public. Just as creationism is now threatening science teaching in American schools, so too pseudoscientific archeology prevents the public from understanding not only archeology in particular but science in general.

Below are a few references which might interest those who wish more detailed exploration into controversies concerning the prehistory of the Americas.

Cole, John. "Cult Archeology and Unscientific Method and Theory," In Advances in Archaeological Method and Theory, vol. 3, Michael B. Schiffer, editor. New York: Academic Press, 1980.

A provocative commentary on the characteristics of cult archeologies which contribute to their popular appeal.

Goddard, Ives and William W. Fitzhugh. Barry Fell Statement. Department of Anthropology, Smithsonian Institution, 1979.

Goddard, a linguist, and Fitzhugh, an archeologist, refute Fell's interpretation in his book, America B.C., of stone "inscriptions" demonstrating ancient peoples' contact with the New World prior to A.D. 1000.

McKusick, Marshall. The Davenport Conspiracy. Iowa City: University of Iowa, 1970.

A true account of the Davenport tablets of Iowa which created one of the major controversies in the 19th century concerning the mound-builders and the prehistory of America.

Neudorfer, Giovanna. Vermont's Stone Chambers: An Inquiry Into Their Past. Vermont Historical Society, 1980.

An excellent example of a thorough archeological investigation of Vermont's controversial stone structures attributed to European Neolithic or Bronze Age settlers, with a good introduction on the general controversy by William Fitzhugh.

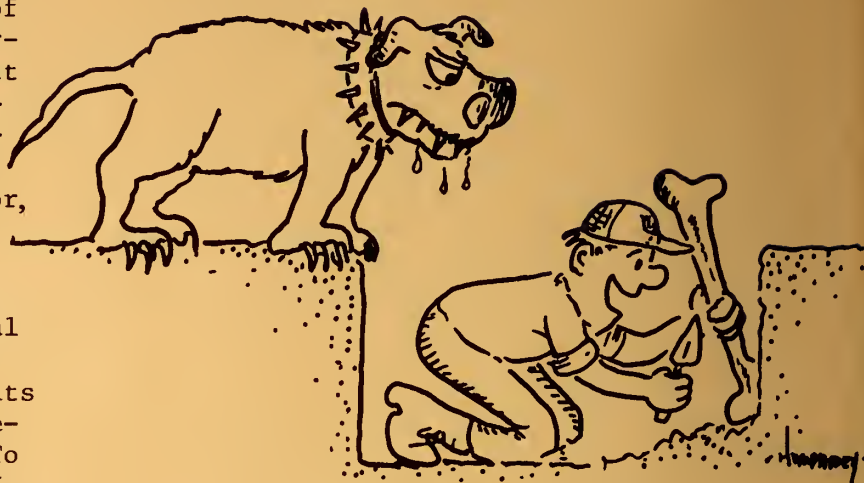
Ross, Anne and Peter Reynolds. "Ancient Vermont," Antiquity 52:100-107, 1978.

A negative assessment of the alleged evidence for pre-Columbian Celts in New England by British Celtic specialists.

(continued on page 10)

## SUMMER OPPORTUNITIES FOR TEACHERS AND STUDENTS

Alexandria Archaeological Research Center offers spring and summer opportunities for student and adult volunteers. This season samples will be taken from a large number of 19th-century households from different socio-economic levels. Artifact analysis, archival research and laboratory projects will also be conducted. Those interested can call Barbara Magid, volunteer coordinator, at 838-4399.



Catholic University's summer field school at Thunderbird Archaeological Park, a paleo-Indian complex near Front Royal, Virginia, will begin its first session June 28 - July 16; second session July 19 - August 6. To register write: Summer Sessions Office, McMahon Hall, Room 116, Catholic University, Washington, D.C. 20064.

Earthwatch offers opportunities for the interested public (ages 16-75) to join scientific expeditions throughout the world with museum and university scholars of various disciplines. For information on joining an expedition, write: Earthwatch, 10 Juniper Rd., Box 127, Belmont, MA 02178.

Fairfax County Archaeological Survey continues to offer volunteer opportunities in survey, excavation and laboratory work in both historic and prehistoric archeology. High school and college interns may receive credit. For further information call Mike Johnson (prehistoric archeologist) or Ed Chatelain (historic archeologist) at 642-5807.

Fairfax County Public Schools sponsors a six-week historic archeology course for high school students. The course entails two weeks of classroom study and four weeks of excavation. The field school will operate from July 6-August 14. For information write:

Mr. Frank Taylor, Masonville Instructional Center, 3705 Creft Dr., Annandale, VA 22003; 698-7500.

George Mason University's five-week field school (May 24 - June 25) will involve finding the original layout and building structures of Colchester, an 18th century town in Virginia, now a suburban residential area. For more information contact Ann Palkovich, Anthropology Program, George Mason University, Fairfax, VA 22030; 323-3492.

George Washington University offers two historical archeology field research sessions in Alexandria, Virginia. The first one-week session (May 31 - June 6) focuses on basic techniques of historical archeology including development of research questions, documentary research, and artifact analysis. The second two-week session (June 15 - June 29) involves study of historic site excavation and artifact analysis in Alexandria's Historic District. For further information contact Pamela J. Cressey, Field Director, Alexandria Archaeological



Research Center, City Hall, Box 178,  
Alexandria, VA 22313; 750-6200.

Kampsville Archeological Center,  
operated by the Northwestern Uni-  
versity Archeology Program and the  
Foundation for Illinois Archeology,  
offers educational research programs  
for junior and senior high school  
students, college and graduate cre-  
dit opportunities, separate work-  
shops for teachers and fieldwork  
opportunities for the non-profession-  
al. For information write: Ellen  
Gantner, Director of Admissions,  
Kampsville Archeological Center,  
P.O. Box 1499, Evanston, IL 60204;  
(312) 492-5300.

University of Maryland offers its  
first field school in urban archeo-  
logy, in historic Annapolis from  
June 7 - July 16. This six-week pro-  
gram will include intensive excava-  
tion at Reynolds Tavern built in 1747  
and The Jonas Green Site first occu-  
pied in 1696, and weekly guest lec-  
turers. Deadline for applications  
is May 1, with limited enrollment.  
For further information contact Dr.  
Anne Yentsch, Department of Anthro-  
pology, University of Maryland,  
College Park, MD 20742; 454-4677.

Study Abroad Office (2115 N.  
Administration Bldg., University of  
Maryland, College Park, MD) provides  
information on a walk-in basis for  
students interested in opportuni-  
ties for travel, study and work  
abroad. Extensive catalogues and  
indexes including information on  
internships and scholarships are  
available.

Smithsonian Institution's Office of  
Elementary and Secondary Education  
offers several workshops for elemen-  
tary and high school teachers includ-  
ing: American Cultural History  
Through Art (June 28 - July 2);  
Architecture in the Classroom  
(June 28 - July 2); Insects in the  
Classroom (July 12 - July 16);  
Developing Language Skills (July 19 -

July 23); Teaching Writing Using Museums  
(July 26 - July 29); and Improvisation  
is a Problem Solving Tool! (July 26 -  
July 30). Inservice credit is available  
for teachers in local jurisdictions. For  
further information call Tom Lowderbaugh  
at 357-3049. Telecommunications Device  
for the Deaf number is 357-1696. Inter-  
preters for hearing impaired participants  
can be made available free-of-charge by  
prior arrangement.

Thunderbird Research Corporations' archeo-  
logical field program is open to the gen-  
eral public. One-week excavation sessions  
begin May 30 at Virginia's first prehis-  
toric National Historic Landmark where  
human occupation dates from ca. 10,000  
B.C. to the Colonial Period. For further  
information write: Thunderbird Research  
Corporation, 1982 Summer Field Program,  
Route 1, Box 432, Front Royal, VA 22630;  
(703) 635-7337/3860.

Field School Listings in anthropology and  
archeology are available from:

American Anthropological Association  
1703 New Hampshire Ave., N.W.  
Washington, D.C. 20009  
(\$2.50 plus 37¢ postage or stamped en-  
velope)

Archaeological Institute of America  
53 Park Place  
New York, New York 10007 (\$4.00)



## TEACHER'S CORNER: ZOO VIEW

Springtime is a good time to visit the zoo, and observing primates can be an excellent learning activity for junior high or high school students. Below are two exercises appropriate for observing monkeys (Monkey House) and apes (Great Ape House) at the National Zoological Park, Washington, D.C.\* The activities tie into biology, sociology, anthropology, and English classes with their emphasis on behavior, non-verbal communication, and observation and interpretation skills.

### PRIMATE OBSERVATION: LOCOMOTION

1. Walk by at least 8 cages with different primates and record what the most active animal in the cage is doing as you walk by -- i.e. sitting, grooming, sleeping, brachiating (moving arm by arm), knuckle walking, leaping, hanging by the tail and one leg. Record the name of the primate and the locomotion pattern.
2. For 3 primates you observed moving, describe how the method of locomotion is related to the animal's anatomy. What physical features help the animal move, such as tail form, location of special friction skin (like skin on our palm), form of nails.
3. Select any adult primate to observe and take notes on for 15 minutes. Then observe an infant primate (of the same species) for 15 minutes. Estimate about how much of the time is spent in each of the different locomotor activities - walking on all fours, walking or standing on two legs, brachiating, jumping from hindlimbs and landing on forelimbs, jumping on hindlimbs and landing on hindlimbs. Discuss the similarities and differences between the adult's and the infant's movement.

\* These teaching activities were developed for the G.W.U./S.I. Anthropology for Teachers Program funded by the National Science Foundation.

### PRIMATE OBSERVATION: COMMUNICATION

1. Each student chooses a group of monkeys or apes. Watch for 10 minutes, learning to identify each animal (assigning each a name can help).
2. Take notes for 20 minutes, noting specific acts of communication. The list below can serve as a guide:

TACTILE: (grooming, touching, chasing, (A) nipping, wrestling)

VISUAL: rigid or relaxed posture;  
(B) facial expressions such as stares or grins; gestures such as raised eyebrows or yawns; slapping ground or cage; shaking a stick to threaten another; presenting hindquarters in appeasement)

VOCAL-AUDITORY: (listening, shouting, (C) laughing, hooting or calling with vowel sounds; chattering with consonant sounds)

OLFACTORY - taste and smell: (one animal smelling another; 'marking', i.e. urinating, licking or rubbing part of the environment which is then smelled by another animal)

3. After you observe for 20 minutes analyze your notes. Write down A/B/C/or D next to the communication acts described. Does the communication give you any clues to the relationships of the animals to one another?
4. Do a similar observation on a human group that you find at the Zoo.
5. As a class, various students can share their observations. Summarize the communication for both the non-human and the human groups.
6. What are the most common communication acts? Which animals communicate the most? How do nonhuman primates differ in communication acts from humans?



## ESKIMO EXHIBIT

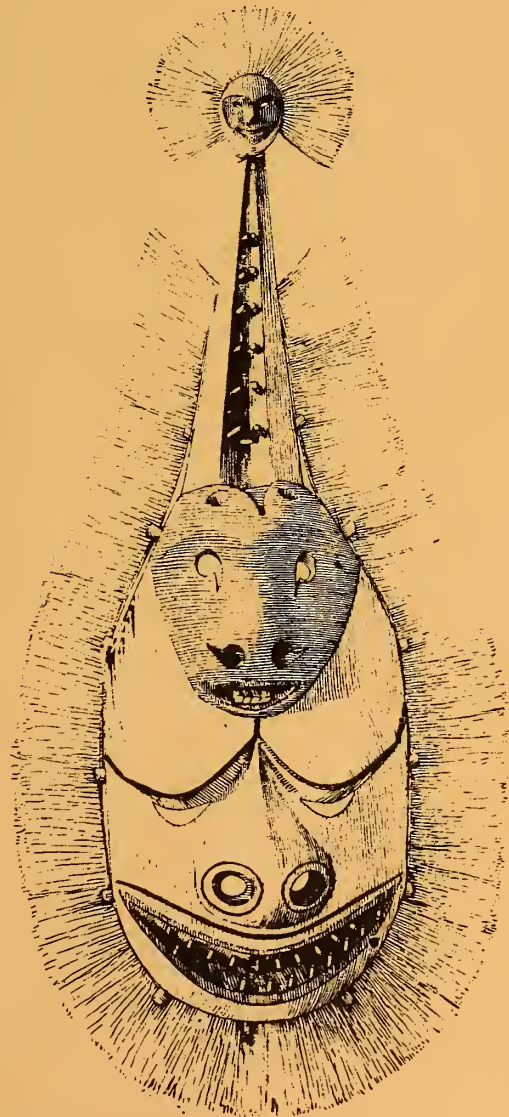
A major exhibition on Eskimo culture of the Bering Sea opens June 18, 1982 at the Smithsonian Institution's National Museum of Natural History/National Museum of Man. Organized by Smithsonian archeologist William Fitzhugh and research/exhibit coordinator Susan Kaplan, the show will portray Bering Sea Eskimo culture about 1880, prior to extensive European contact. Titled INUA: SPIRIT WORLD OF THE BERING SEA ESKIMO, the exhibit explores a central theme of Bering Sea Eskimo culture, the concept of Inua -- the spiritualism that pervades all aspects of life. Based on the collections and field-work of Smithsonian naturalist Edward W. Nelson, the INUA exhibit places on display for the first time the Smithsonian's richest collection of Alaskan Eskimo artifacts. In addition to the exhibit, a heavily illustrated catalogue, a set of educational materials, and a new reprinted edition of Nelson's classic monograph on the Bering Sea Eskimo will be available.

The exhibit will be on view in the Thomas M. Evans Gallery, the new temporary exhibitions hall in the Museum of Natural History. Approximately 500 objects, along with photographs, and a slide show specifically created for the exhibit, will explore the Alaskan Eskimos' relationship to their land, subsistence, domestic life, and spiritual/ceremonial world. Sections devoted to relationships with outside peoples, the archeological past, and contemporary art will provide a broad framework against which to view late 19th century Bering Sea Eskimo culture.

Extensive public programming has been planned. Performances by the King Island Eskimo Dancers from Nome, Alaska will take place on June 18, 19, and 20 in the Museum of Natural History. Demonstrations of traditional crafts, including ivory carving and basket weaving, will also be

available on those three days. At noon on Friday, June 18, the local premiere of a film on Alaskan Eskimos, "Village of No River," will be held. A day-long Smithsonian Resident Associate Seminar on the Art and Culture of the Bering Sea Eskimo is scheduled for Saturday, June 19 (see Upcoming Events). Friday, June 25, a public slide-lecture on the exhibit will be presented in Baird Auditorium.

Daily films on Alaskan Eskimos will be shown and guided tours will be available from specially trained docents. For teachers there may be workshops in the early fall. Any teachers interested in such workshops should contact Laura McKie, Office of Education, 357-2066. In the fall special tours of the exhibit may be arranged for school classes. The exhibit closes January 1983.



## IQ, ME CUE, YOU QUEUE

"I feared that in making measurements on heads with the intention of finding a difference in volume between an intelligent and a less intelligent head, I would be led to increase, unconsciously and in good faith, the cephalic volume of intelligent heads and to decrease that of unintelligent heads.... Suggestibility... works less on an act of which we have full consciousness, than on a half-conscious act -- and this is precisely its danger." (Alfred Binet, 1900)

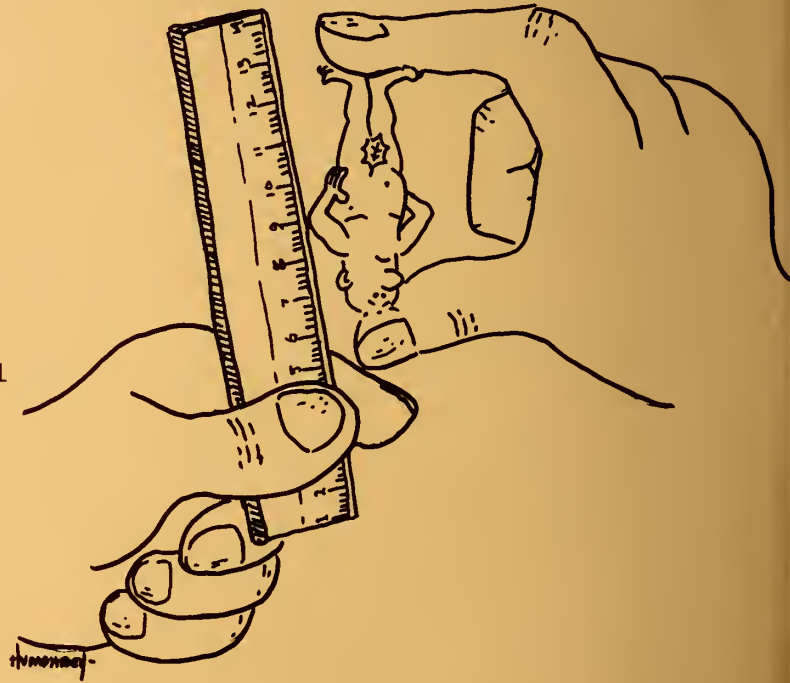
"We are inextricably part of nature, but human uniqueness is not negated thereby. 'Nothing but' an animal is as fallacious a statement as 'created in God's own image.' It is not mere hubris to argue that Homo sapiens is special in some sense -- for each species is unique in its own way; shall we judge among the dance of the bees, the song of the humpback whale, and human intelligence?" (Stephen Jay Gould)

Stephen Jay Gould. The Mismeasure of Man (New York: W.W. Norton and Co., 1981).

The Mismeasure of Man shocks, rankles, saddens, and enlightens. In his latest book, Stephen J. Gould provides a readable and detailed history of scientists' attempts to rank people by intelligence and explains how those attempts fail as science. The book epitomizes aggressive scholarship and lucidity. A significant achievement, The Mismeasure of Man merits the attention of anyone teaching science or social science today.

According to Gould, biological determinism suffers from both scientific weakness and overwhelming influence of political context. The book focuses particularly on scientists who have seen intelligence as biologically determined and on arguments that rest on the fallacies of reification and ranking. As Gould states, his book is "about abstraction of intelligence as a single entity, its location within the brain, its quantification as one number for each individual, and the use of these numbers to rank people in a single series of worthiness, invariably to find that oppressed and disadvantaged groups -- races, classes, or sexes -- are innately inferior and deserve their status" (pp. 24-25).

A basically racist mentality was already in existence in the nineteenth century with American polygenists arguing that humans can be divided into



separate species. The practices of craniometry (head measurement) added fuel. Gould specifically scrutinizes the work of Louis Agassiz, a well-known naturalist who couched his advocacy of a social policy of separation of the races in terms of a supposedly dispassionate inquiry into scientific fact. Gould uncovers just how passionate, unscientific, and unfactual that inquiry was. Gould then turns to Samuel Morton, "the empiricist



of polygeny" who attempted, through the analysis of 600 skulls (most of Native Americans), to rank the races by the size of their brains. Although widely hailed as the objectivist of his age who would "rescue American science from the mire of unsupported speculation," Morton unconsciously finagled his data to show blacks fare poorest, whites best. Gould re-examined Morton's raw data, as he did that of Paul Broca, famous for his nineteenth century anthropometry (body measurement studies). By returning to this raw data, Gould discovers how Broca assumed that "human races can be ranked in a linear scale of mental worth, not realizing that human variation might be ramified and random." Unfortunately anthropometry became for Broca "a search for characters that would display the correct ranking, not a numerical exercise in raw empiricism."

In the nineteenth century, some scientists misapplied evolutionary thought to justify ranking groups. Several scientists tried to prove that lower-ranking groups have more apeish physical characteristics. Cesare Lombroso, a scientist specializing in criminal anthropology, argued that criminals were less intelligent and "less evolved" than the normal population. Although the arguments seem outlandish and outdated, Gould shows how scientists in the 1970's and 1980's use similar arguments.

Not only have heads and bodies been mismeasured, but IQs as well. Gould concentrates on the Stanford-Binet test and the three pioneers of hereditarianism in America who encouraged the test's widespread use. H.H. Goddard brought Binet's scale to the U.S.A. and reified its scores as innate intelligence. Lewis M. Terman developed the Stanford-Binet scale and dreamed of a rational society that would allocate professions by IQ scores. Robert M. Yerkes persuaded the army to test 1.75 million men during World War I, thus establishing the supposedly objective data that vindicated hereditarian claims and led to the Immigration Restriction Act of 1924. Poor Binet would have been horrified since he meant the scores only

as a rough practical device for identifying learning-disabled and mentally retarded children, never for ranking normal children. Binet never suggested that the scores defined or measured intelligence let alone anything permanent or innate.

Throughout, Gould relates the earlier "mismeasurers" to the present day, examining the work of such people as Arthur Jensen. For example, Gould devastates the work of Sir Cyril Burt (1883-1971) who was responsible for the administration and interpretation of mental tests in London's schools and who was later professor of psychology at University College London (1932-1950). In the last five years, others have uncovered the fraudulent basis of Burt's twin studies, IQ correlations between close relatives, and his data for declining levels of intelligence in Britain. But Gould underscores how the hereditary quality of intelligence was such an *idée fixe* for Burt that it blinded his interpretation of data for intelligence and class associations and warped his use of factor analysis.

Arthur Jensen's work, which became a cause célèbre in this country a few years back, relies heavily on evidence from Burt's fraudulent twin studies and on the idea of a single factor or entity for general intelligence. Gould writes in his book that "Jensen would not only rank people; he believes that all God's creatures can be ordered on a "g" [general intelligence] scale from amoebae at the bottom to extraterrestrial intelligence at the top.... As a paleontologist, I am astounded. Evolution forms a copiously branching bush, not a unilinear progressive sequence" (pp. 317-318). In a final chapter, Gould discusses how sociobiology also falls prey to mismeasuring humans.

The Mismeasure of Man, however, is not a book of negative debunking. The end result is positive. Gould aims to rid scientific thought of the

fallacious but incredibly entrenched habits of reifying and ranking so that scientists (and by implication the general public) can make room for the new knowledge of human biology, evolution, and genetics. "The remarkable lack of genetic differentiation among human groups -- a major biological basis for debunking determinism -- is a contingent fact of evolutionary history, not a priori or necessary truth" (p. 322). To dwell on the difference between people often is a mischievous and malicious exercise.

Reading Gould's book provides valuable learning for today's anthropologists and teachers. Gould shows, by his own example, the enormous importance of going back to original sources and following the growth of intellectual ideas. Gould reports that most of the scientists examined (Burt is the notable exception) recanted many of their ideas on the reification of intelligence later in life, but unfortunately the impact of their earlier work continues. We learn from The Mismeasure of Man the tenacity of unconscious bias and the surprising malleability of "objective", quantitative data in the interest of a preconceived idea.

Overall, Gould tries to persuade us that even though a factual reality exists and that science can learn about it, science is not an objective enterprise. It is a "socially embedded activity" where culture influences what we see and how we see it. "Science must be understood as a social phenomenon, a gutsy, human enterprise, not the work of robots programmed to collect pure information" (p. 21). This is a healthy and revitalizing view for anthropologists who do research on human variation or human evolution, and for teachers who try to explain to their students what science is all about.

JoAnne Lanouette

(PRECOLUMBIAN SETTLERS... continued from page 3)

Stewart, T. Dale. THE PEOPLE OF AMERICA. New York: Charles Scribner's Sons, 1973.

Excellent source on the physical anthropology of American Indians including the question of origins and the physical characteristics of Indian populations at the time of European contact and today.

Wauchope, Robert. LOST TRIBES & SUNKEN CONTINENTS: MYTH AND METHOD IN THE STUDY OF AMERICAN INDIANS. Chicago: University of Chicago Press, 1962.

A highly readable discussion of the various nonscientific myths and theories by a well qualified archeologist.

THE CASE OF THE ANCIENT ASTRONAUTS, 1977. From Nova series. Available from The Pennsylvania State University, Audio Visual Services, Special Services Bldg., University Park, PA 16802; (814) 865-6314.

Film documents the unscientific inadequacy of Erich von Däniken's theory and book CHARIOTS OF THE GODS?

Ann Kaupp



## ANTHROPOLOGY FOR TEACHERS

If you are a teacher, a graduate student at any area university, or a museum educator who has heard about the Anthropology for Teachers course, but has never had the opportunity to take it, next year is your chance!

Although National Science Foundation funding for all Pre-College Teacher Development in Science projects was cut, the Anthropology for Teachers program will continue next year in a slightly different form.

No longer limited to employed teachers, Anthropology 255-256, the graduate credit, two semester course, will now be offered to anyone interested in teaching anthropology in schools or museums. The George Washington University course will meet during the fall semester on Tuesdays 6:10 to 8:00 p.m. on the university campus and on four Saturday mornings at local museums. The course will be taught by JoAnne Lanouette and the Saturday sessions by Ruth Selig. The approach and organization of the course will continue as it has in the past. Monthly topics will be: Primate Behavior, Human Evolution, Civilizations of the Past, Anthropologists' Fieldwork, Growing

Up in Africa Between Cultures, Native Americans Past and Present, Human Variation, and Anthropology of American Life. Tuition will be charged for the 4 graduate credit course (3 credit option available). If you have any questions please call JoAnne Lanouette or Ruth Selig at the Smithsonian (357-1592) or at the Anthropology Department at George Washington University (676-6075).

Anthro·Notes editors are seeking funds to continue publication next year with four issues planned. The Anthropology Resource Center for teachers will remain in the Naturalist Center, Museum of Natural History, open Wednesday through Sunday (357-2804). Teachers can review materials and resources appropriate for the secondary level. The center houses curriculum units, education games, film and audio-visual catalogs, a Washington D.C. area resource file, paperback books, teaching units, and five Odyssey video-cassettes. Teachers and individual students can also take advantage of the other anthropology learning opportunities in the center such as the self-teaching labs in human bones and lithic technology.



## ARCHEOLOGY ALIVE WITH ECOLOGY

When David Clark talks about environmental science and archeology, his enthusiasm makes clear why his program has grown successfully each year. Developed a decade ago, the Environmental Science and Archeology resource program today is an integral part of the science curriculum in four public schools in the District of Columbia.\* Since Clark is a unique kind of teacher, often hired by P.T.A.s and other special groups, his program can easily expand into other counties. As a professionally trained archeologist (with a Ph.D. from the University of Pittsburgh, and presently a Research Associate and Instructor at Catholic University), Clark is a community resource teachers need to know about.

Clark's program grew out of a carefully thought through philosophy about the ways archeology relates to environmental science and the ways it can best be presented to young students. As Clark explained, "The most important goal of my approach is to study science within the context of the environment. The basic principle is that all things around us, either natural or artificially produced, are parts of the environment and scientific study in general attempts to uncover information about the environment. In this way the study of science and the environment are more meaningful to the student because one is shown to be closely related to the other."

During the year Clark teaches his program to kindergarten through the eighth grade in several schools. Each class meets for two hours, two days a week, usually one hour in the classroom and one hour outside. Since the program

runs approximately six weeks, Clark can teach all grade levels during the year.

How does archeology fit into the scheme? As Clark explained, "Archeology is the study of people, past or present, based on the analysis of 1) things they have left in the ground, and 2) the parts of the environment altered by their presence. Humans are biological animals with a high degree of cultural complexity. Ecologically, humans are one part of the complex environment and interact with living (biotic) and non-living (abiotic) parts of it. Basically, humans affect the environment they live in and the environment affects them. The physical structure, the behavior, and the culture of people can be directly or indirectly linked to the environment. Culture is one way of adjusting or adapting successfully to the environment and human groups have been very successful at adapting to an incredible variety of environments throughout the world. Humans have gone beyond simple utilization of the natural environment by producing resources and materials artificially. In many cases, these artificially produced materials are supplements for resources of limited quantity in the natural environment."

We asked Clark how he translates these rather abstract concepts into actual classroom teaching and how he incorporates archeology in the process. Clark structures his course by having students first study the non-living (water, rocks, sediments), then the living (plants, animals, and humans) environment. Archeology is approached as one link between the living and nonliving. For example, when the non-living environment is introduced, students study the geologic formation of rocks. The form, origin, composition, and characteristics of rocks are examined. Students study the ways rocks are used today in their school

\* Many thanks to the P.T.A., teachers, and the Principal (Miss Betty Brooks) of the Key Elementary School for the opportunity to pilot teach the full program in elementary school classrooms in 1979 - David Clark



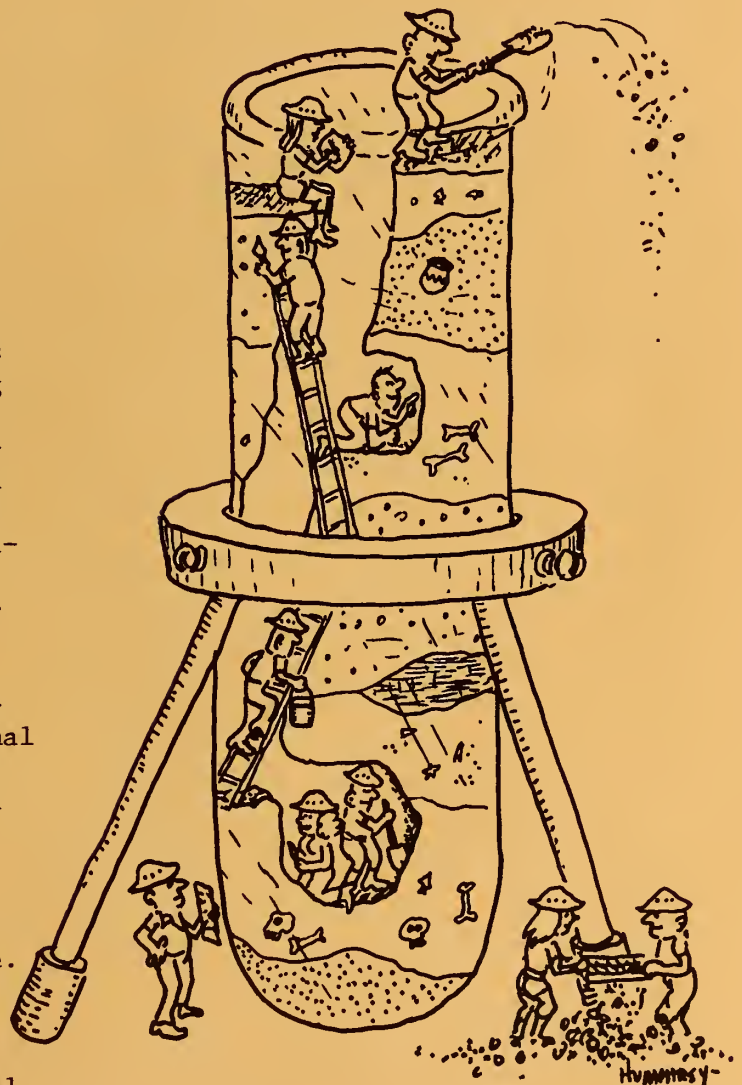
neighborhood and at home. Finally they study the ways rocks were used in the past, during the historic and prehistoric times. Students learn how stone was used architecturally, and in the stone milling industry. To study prehistoric times, Clark has developed a stone technology unit. Students, wearing safety glasses, experiment and test various rocks to understand their differences for stone implement manufacturing. In the classroom Clark actually manufactures stone tools, while students record the manufacturing process step-by-step. When possible, teacher and students try out the implements to verify their utility.

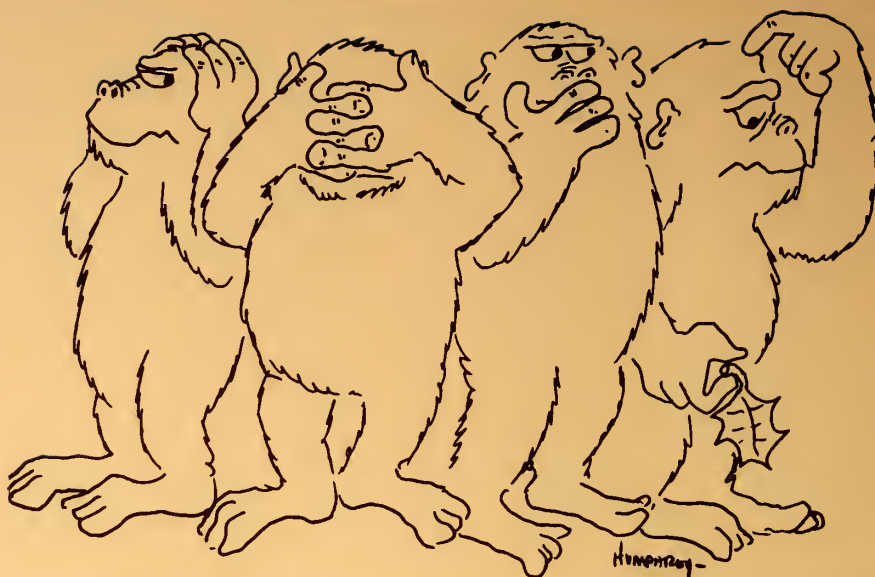
Archeology is further considered when plant and animal topics are covered. Clark explained that "prehistorically plant and animal exploitation was very important. People had to know basic information about plant and animal structures and communities in order to know about the availability of these resources within a particular environment." During class periods, students conduct biogeographical surveys where they record habitat characteristics of various plants and animals they observe. In class students examine plants and animal skeletal material which Clark provides to study the Native American use of the natural environment.

Because of Clark's extensive archeological experience (his specialty is faunal analysis), and his access to actual collections, he can bring to class plant and animal bone refuse from archeological sites. Students work to interpret the material, reconstructing parts of the environment from the types of plant and animal remains identified from the refuse. Throughout, the emphasis is on human adaptation to the environment.

Clark stressed that his Environmental Science and Archeology Program emphasizes that "people must maintain some form of balance with the environment and learn to live in harmony with the natural world. In the elementary and middle schools, archeology and science should

work together to create an awareness of this balance. In addition, young students can gain some appreciation of Native Americans who believed in the essential harmony in the natural world. In this way, we may be able to create a future generation sensitive to the ecological needs of tomorrow."





## Do You Know?

- the March 29th issue of Newsweek has a well-written feature article on paleontologist Stephen Jay Gould, "perhaps America's foremost writer and thinker on evolution."
- two directories of practicing anthropologists are available: 1) a national directory from the American Anthropological Association consisting of AAA members professionally employed, excluding colleges, universities, and museums (call 232-8800; AAA members \$4.00, non-members \$6.00); and 2) a local directory of practicing anthropologists in the nation's capital, other than researchers and teachers, available from WAPA (Washington Association of Professional Anthropologists), Box 8709, Washington, D.C. 20011 for \$4.50.
- available now are three books with a female perspective on human evolution written by women anthropologists: Sarah Blaffer Hrdy, The Woman that Never Evolved; Nancy Tanner, On Becoming Human; and Helen Fisher, The Sex Contract: The Evolution of Human Behavior.
- in the March issue of Natural History magazine, Peter G. Veit discusses the social structure of the mountain gorilla (near Karisoke Reserve in Rwanda) by focusing on female reproductive cycles and changes in group composition.
- the Smithsonian Institution is testing and evaluating the Smithsonian Family Learning Project developed at the Chesapeake Bay Center for Environmental Studies. It consists of "a unique set of activities for families that use such ordinary, everyday objects as apples and celery, lawns, houseplants, and even the family pet to teach young and old about science and the environment." For further information and availability of this "fun-to-do" project, write to the Smithsonian Family Learning Project, P.O. Box 28, Edgewater, MD 21037.
- observations of nonhuman primate sexuality can provide not only insight into contemporary human sexual response but also clues to early hominid behavior. See "Hominid Promiscuity and the Sexual Life of Proto-Savages: Did Australopithecus Swing?" by Richard G. Whitten, Current Anthropology 23 (February 1982): 99-101.
- Anthro·Notes welcomes your suggestions for teaching anthropology, editorials, upcoming events and appropriate books for the pre-college classroom.



## UPCOMING EVENTS

March 12 - August 12: "Contemporary North American Indian Art", exhibit at the Museum of Natural History, third floor.

April 17 - June 13: "The Tarahumara" exhibit at the Museum of Natural History, third floor rotunda.

April 21 - June 2: "Pre-Columbian Art and Archeology of Peru" by Elizabeth P. Benson (Research Associate, Institute of Andean Studies). For information on the Smithsonian Resident Associate Program lecture series, call 357-3030.

May 4 - June 8: "The Tribal Eye: Case Studies in Art and Anthropology". Lecture series by Smithsonian ethnologists specializing in Polynesian (Adrienne L. Kaeppler), Tobelorese (Paul M. Taylor), African (Gordon D. Gibson), Canela (William H. Crocker), Mayan (Robert M. Laughlin), and North American Indian (William C. Sturtevant) societies. For ticket information see April 21st.

May 13 - May 14: "Immigrants and Refugees in a Changing Nation: Research and Training Needs". Conference to be held at Boystown Center, Catholic University. Interested persons should call: Lucy M. Cohen, Department of Anthropology, Catholic University of America, at 635-5080.

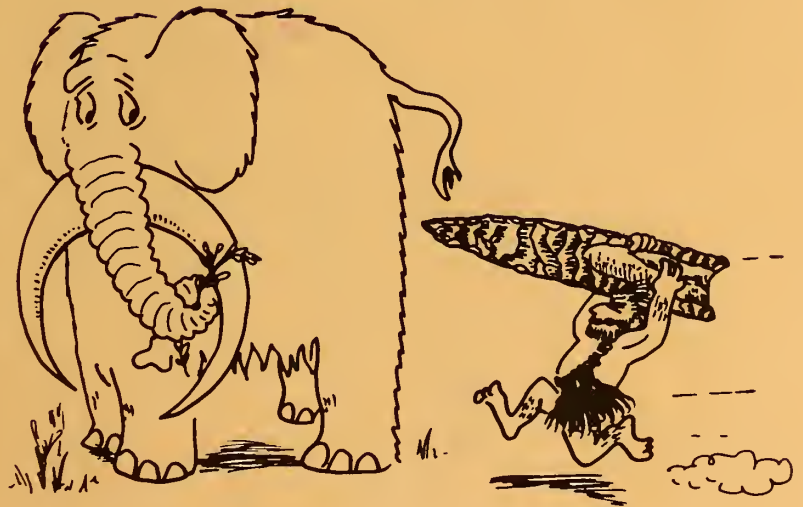
May 15: "Humans and Apes: Pathways in the Search of Human Origins". A symposium in New York City sponsored by the American Museum of Natural History and the L.S.B. Leakey Foundation. Speakers will be Jane Goodall, Dian Fossey, and Birute Galdikas with Donald Johanson as moderator. For ticket reservations and information call the American Museum of Natural History Membership Office at (212) 873-1327.

June 19: "Art and Culture of the Ber-  
ing Sea Eskimo". A day-long seminar sponsored by the Smithsonian Resident Associate Program office. Speakers

include William Fitzhugh, Susan Kaplan, Saradell Ard Frederick, George Swinton, and James W. VanStone. For ticket information call 357-3030. (See article on Eskimo exhibit, p. .)

June 24 - 28; July 1 - 5: Festival of American Folklife. This season Oklahoma is the featured state presenting ethnic music, crafts, and occupation folklore of the oil industry. Korean and Korean-American craftsmen, singers, and dancers will be presented along with numerous other events occurring during the festival hours of 11 a.m. to 5:30 p.m.

August 26 - February 21, 1983: "Celebration: A World of Art and Ritual" exhibit at the Renwick Gallery. Second floor exhibits open covering religious celebrations, storytelling, dance, games, and sports. First floor exhibits on rites of passage, masks, costumes, and sound and music, opened March 1982.



ANTHRO·NOTES is part of The Anthropology for Teachers Program. This program is funded by the National Science Foundation and conducted by the Anthropology Departments of George Washington University and the Smithsonian Institution. Program Staff: Dr. Alison S. Brooks, Director; JoAnne Lanouette and Ruth O. Selig. If you want information about the program or your name added to the mailing list, write: Ann Kaupp, Department of Anthropology, National Museum of Natural History, Stop 112, Smithsonian Institution, Washington, D.C. 20560.

ANTHRO·NOTES STAFF: Ann Kaupp, JoAnne Lanouette, Ruth O. Selig, editors; Robert Humphrey, Robert Lewis, Ellen Paige, artists.

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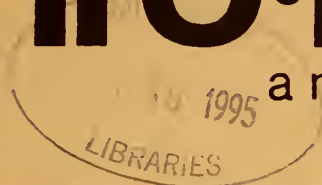
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# anthro•notes

a newsletter for teachers



vol. 4 no. 3

fall 1982

## FEMALES UP FRONT

Is it possible that the women's movement has changed the story of human evolution? Until recently, the evolution of "man" was discovered, analyzed, and described by male scientists who viewed male hunting, male tool-making, male alliance and male group defense as key elements binding early human societies together and explaining their emergence. As Jane Lancaster states in the Summer 1982 F.R.O.M. newsletter (vol.4, no.2), few scientists "troubled to reconstruct (female) activities beyond sitting before the cave, tending the fire, and nursing infants." Lancaster describes a study by Lorraine Heidecker (Calif. State Univ., Sacramento) analyzing illustrations used in current introductory anthropology textbooks. Only seven pictures were found showing women as "active, central, productive, contributing part-

ners in hominid activities during prehistory." Only 15% of the human figures were recognizably female and in only 25% of the pictures was a female the central or dominant figure. Stereotypic representations predominated: women shown passively watching children; tending a fire; or providing an audience for male activities such as burial rituals, tool making, or story telling. "Such pictorial reconstructions of early hominid activities unconsciously represent the traditional script of human evolution, stories which still circulate among us." But, as Lancaster continues, "The decade of the 1980's will clearly witness a major change in our reconstructions of the past, partly in response to the demands of the feminist movement and a trend in redefining sex roles in modern society."

(continued)



Three recently published studies by women anthropologists have already begun to shift views of our past: Nancy Makepeace Tanner, On Becoming Human (New York: Cambridge Univ. Press, 1981); Sarah Blaffer Hrdy, The Woman That Never Evolved (Harvard Univ. Press, 1981); and Helen E. Fisher, The Sex Contract: The Evolution of Human Behavior (New York: Wm. Morrow & Co., 1982). All three books emphasize the long neglected importance of the female contribution to the emergence of human behavior and all three add to our understanding of female sexuality and sexual asymmetry. Each is well written, based on recent scientific research, and provides a new and provocative interpretation of the process by which males and females first became human beings.

Tanner's On Becoming Human provides a feminist's reconstructionist model for the transition from ancestral ape to Australopithecine. Central to this transition was the innovative shift from individual foraging to the gathering of plant food (and small animals) by the females and the sharing of that food with their attached offspring. Hence the earliest tools were most likely those made and used by females to obtain plant food and make tough food edible. In addition, female selection of male sex partners similar to themselves -- sociable, intelligent, sharing, and protective -- was a key to becoming human. In this new look at our past, it is female and not male behavior which pushed our species across the crucial boundary between ancestral ape and early human.

Hrdy focuses her book, The Woman That Never Evolved, on nonhuman primate behavior, particularly monkeys, to demonstrate the wide diversity in primate social structure and behavior. Hrdy asserts that different reproductive strategies and differential investment in offspring created powerful differences between males and females. Contrary to the traditional view that females are the passive recipients of the outcome of male/male competition, and mere consumers of male paternal investment, Hrdy argues

that females have strong reproductive strategies of their own. For example, she maintains that certain aspects of female sexuality -- orgasm, concealed ovulation and year-round sexual receptivity -- are adaptations to increase the female's ability to choose males with superior genes. A female enhances the survival of her offspring by offering a number of consorts the probability of paternity thereby increasing male investment. Observations of primate behavior demonstrate that most female primates are more assertive and sexually active than previously supposed, ready to engage in sexual activity throughout the monthly cycle and with more partners than necessary for conception. Contrary to popular beliefs, sexually passive, noncompetitive, and meek females never evolved!

Though Hrdy recognizes the biological closeness of humans and apes, she concentrates on her own research with langurs, and on other monkey societies which exhibit a wide variation in social systems, such as monogamy and polygyny. According to Hrdy, primate social systems are dictated by how females space themselves and by the hierarchies they establish which are determined by the availability and utilization of resources. Thus female access to resources and the ability to protect offspring, both necessary for the successful development of infants, lead to female status. Competition and cooperation among females is seen as the key to the complex social networks of primate societies.

Fisher in The Sex Contract stresses the importance of female sexuality in the evolution of human behavior. Bipedalism created a turning point in the relationship between the sexes making it more difficult for females carrying infants to catch their own meat, join small hunting parties, and flee from danger. According to Fisher, it was at this time in our evolutionary history that females were forced to make a sex contract with males: in exchange for sex and vegetables, the



males provided meat and protection.

Fisher emphasizes the important role natural selection played in the evolution of human social life. Through recreations of the daily life of our ancestors at different evolutionary stages, Fisher reveals how selection favored bipedalism, division of labor, pair-bonding, and certain types of personalities with an "innate disposition to share, cooperate, divide work, and behave altruistically." Fisher bases her interpretation primarily on fossil evidence, primate studies, and human sexual behavior research.

All three authors describe the process by which human behavior evolved. Tanner's model has "three critical stages": a primate population directly ancestral to the hominid line (the apes); a transitional hominid population; and a population of Australopithecines. Tanner maintains that transitional hominids established a diurnal omnivorous adaptation to the savanna, not in competition with the herbivores or carnivores already present. It was at this time, eight to four million years ago, that gathering plants with tools for later consumption was adopted, a strategy compatible with extended infant dependency. Tool use was a female response to the need for more efficient methods of obtaining and preparing plant food. Males, she contends, were "likely still foragers", eating available food as they roamed. Bipedal locomotion was selected for since savanna life created a need for greater mobility and for effective carrying of infants, tools, and gathered food.

According to Hrdy, though males tend to dominate in most primate societies, females enjoy considerable status and exhibit powerful competitive strategies for access to natural resources and sexual selection. Among monogamous species (i.e. lemurs, marmosets, gibbons), females tend to have higher status than in polygynous species. Males spend more time grooming females, and females frequently initiate moves to new feeding locations, and are given priority to food sources.

Hrdy states that female choice may be a factor in monogamy where "any prospect of polygyny would be precluded by fierce antagonism among females of breeding age." In most monogamous societies rival females are physically excluded from the territory and there tends to be only one breeding female in each territorial group, with suppression of ovulation in subordinate females. In many polygynous species (i.e. squirrel monkey, ring-tailed lemur), males tend to defer to females avoiding great expenditure of energy and physical risks except during a short breeding season.

Research on monogamous primates weakens the argument that high levels of sexual activity for females encourages pair-bonding and therefore an increase in paternal investment. Siamangs, gibbons, and indrii, for instance, copulate infrequently during breeding periods.

Hrdy concludes that characteristics of females in polygynous societies, such as aggressive readiness to engage in liaisons with multiple but selected males (which is the case for our close cousins, the chimpanzee), suggests that similar behavior was representative of prehomonid females. According to Hrdy, it is the expectation of female "promiscuity" that has had profound effect on human cultural institutions to ensure the male's confidence in paternity.

While Hrdy asserts that our protohominid female ancestors were sexually "promiscuous" to ensure multiple male investment in their offspring, Fisher argues that continuously receptive and highly sexed females benefitted by receiving not only male protection but morsels of meat. The exchange of vegetables and sex for meat and protection led to the "sexual revolution" from which

(continued on p. 14)

## TEACHERS INVITED!

Mark your calendar for Saturday and Sunday December 4th and 5th for the Annual Meeting of the American Anthropological Association to be held at the Washington Hilton Hotel, 1919 Connecticut Ave., N.W., Washington, D.C. You are cordially invited! Two years ago a large number of area teachers attended sessions here in Washington and spent time browsing through the extensive anthropology book displays.

Below is an abbreviated Program Schedule for Saturday and Sunday. Local teachers attending only one or two sessions do not need to register for the entire four-day meeting. This generous waiver is a strong invitation for teachers to take advantage of the rich pot-pourri offered by this once-a-year event.

### Saturday, December 4th:

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|------------|---|
| 8:45-10:00 | Kids Dig It: American Indian Archeology in the Middle School (Potomac River Archaeology Survey)                             |
| 8:00-11:45 | The Andes and the Himalayas Compared: Ecology, Economy, Society and Culture in Two High Altitude Regions (Catherine Allen)* |
| 9:45-11:30 | Distinguished Women Emeritae Reflect on Anthropology  |
| 9:45-12:00 | Creationism: Its Challenge to Anthropology  |
| 12:00-1:30 | Creationism and the Classroom: Approaches to the Challenge (Ruth Selig; JoAnne Lanouette; Joyce Abell)*                     |
| 12:00-1:30 | The Role of Anthropology in Schools of Education  |
| 1:30-3:45  | Roots of Modern Anthropology  |

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|-----------|---|
| 2:15-5:00 | Anthropology of Education: School, Classroom, and Teacher |
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| 2:15-4:45 | The "Special" Federal-Indian Relationship: Yesterday, Today and... Tomorrow? |
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### Sunday, December 5th:

- |             |  |
|-------------|--|
| 8:45-11:15  | Physical Anthropology: Evolutionary Processes  |
| 8:45-11:45  | Archeological Materials: Lithic and Other Technologies (Mark Leone)*   |
| 8:00-11:15  | Culture and Depression: Toward an Anthropology of Affects & Affective Disorders  |
| 10:00-12:00 | Refugees, Immigrants and the Urban Displaced in the U.S.   |
| 10:00-12:00 | Middle Aged Women in Complex Societies: Ethnographic & Cross-Cultural Perspectives   |
| 12:00-1:30  | Women in Anthropology: The Way It Was  |
| 1:30-5:00   | Anthropology of Education: Students in School  |
| 2:00-4:15   | Middle Aged Women: Evolutionary, Ethnographic, and Cross-Cultural Perspectives (Jane Lancaster)*                                 |
| 5:30-7:00   | Council on Anthropology and Education meeting for Committee 3 - Committee on the teaching of Anthropology (All teachers invited) |

\* Speakers listed have been associated with the G.W.U./S.I. Anthropology for Teachers Program during the past four years.



## TEACHER WORKSHOP

Saturday, December 4

12-1:30 p.m.

Washington Hilton Hotel

"Georgetown West" Room

### CREATIONISM AND THE CLASSROOM: APPROACHES TO THE CHALLENGE

An open discussion workshop for teachers and anthropologists presenting various approaches educators have used to meet the challenge of Creationism in the classroom. Approaches include materials and methods, community organizing, and teachers' associations' strategies. A packet of materials will be available to teachers attending the workshop.

#### Panel:

Catherine Callaghan, Ohio State Univ., author of "Evolution and Creationist Arguments," The American Biology Teacher 42(7) (October 1980);

Eileen Burke-Trent, Morgantown, W.Va., teacher of evolution in "Bible Belt" schools;

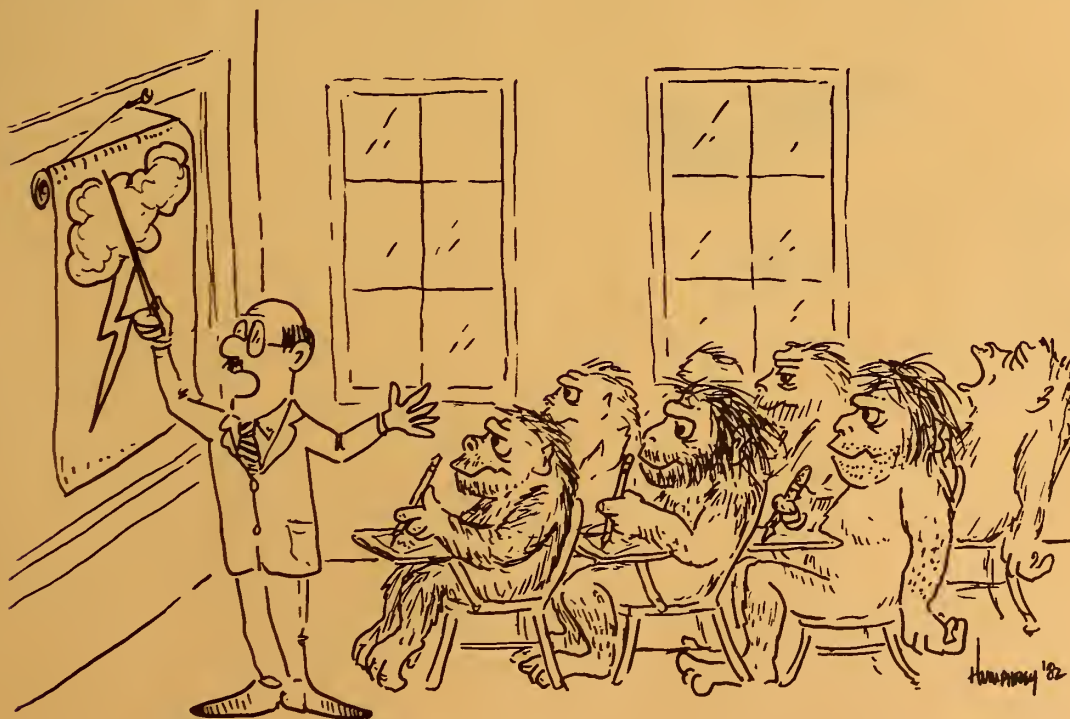
Patrick McKim, Calif. Polytechnic Univ., organizer of community based teachers' workshops on creationism;

Wayne A. Moyer, Exec. Dir., National Association of Biology Teachers;

Joyce Abell, Social Studies teacher, Montgomery County;

JoAnne Lanouette, George Washington Univ., author of "Creationism ≠ Science," Anthro.Notes 4(1) (Winter 1982).

Workshop Organizers: Patricia J. Higgins (S.U.N.Y.) and Ruth O. Selig (Smithsonian).



## UPCOMING EVENTS

Nov. 6: "Myth & Symbolism in Bering Sea Eskimo Culture" by William W. Fitzhugh (Curator in charge of new exhibit Inua Revealed: Spirit World of the Bering Sea Eskimo.) Gallery Theater, Museum of Natural History, 10:00-12 p.m., Saturday. Lecture and short tour.

Dec. 4: "In Search of Human Origins." All day Smithsonian seminar. Speakers will be Anna K. Behrensmeyer (Curator, Dept. of Paleobiology, Smithsonian Institution), Elwyn L. Simons (Director, Duke Univ. Primate Center), David R. Pilbeam (Dept. of Anthropology, Harvard Univ.), and Alan Walker (Johns Hopkins School of Medicine). For ticket information call Smithsonian Resident Associate Program office at 357-3030.

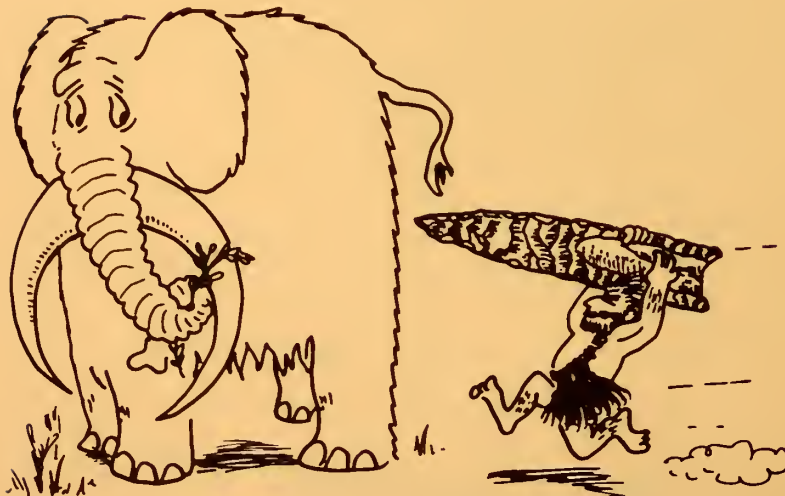
Dec. 4-7: American Anthropological Association (AAA) Annual Meetings. Washington Hilton Hotel. (see p.4).

## TEACHER'S CORNER: NELSON'S DIARY

When the Inua exhibit (see p.11) travels to Alaska, it will be accompanied by a special school curriculum packet Of Kayaks and Ulus: The Bering Sea Eskimo Collection of Edward W. Nelson, "The Man Who Collected Worthless Things." Written by Ruth Selig and Ann Bay, the packet will contain five student booklets, 20 slides, a tape and a teachers' guide. Original Nelson letters, a previously unpublished journal, Eskimo myths, and festival descriptions will give students a unique opportunity to learn about a great Smithsonian collection, its collector E.W. Nelson, and the remarkable 19th century Bering Sea Eskimo people whose culture lives on through Nelson's writings and the beautiful objects on exhibit. The curriculum packet will be completed by Spring 1982, and inquiries regarding availability can be made at that time by calling Ruth Selig, 357-1592 or Ann Bay at 357-2111.

To enable your students to learn about the Bering Sea Eskimo culture, we are reproducing excerpts from one of the curriculum packet's student booklets, A Sledge Journey in the Delta of the Yukon, Northern Alaska, by E.W. Nelson. The original journal on which this booklet is based was circulated by the Royal Geographical Society of England, but has remained virtually unknown to all but a handful of scholars. The Journal describes a remarkable two month dog-sled journey made by Edward Nelson into the interior of southwestern Alaska during the winter of 1878-1879.

We hope you will use this lesson in connection with a visit to the Inua exhibit, but it is designed to be complete in itself. To facilitate the duplication of this material for classroom use, the Journal is printed as a separate pull-out section of Anthro. Notes. For further background information see the article "Spirits" on Exhibit (p.11).





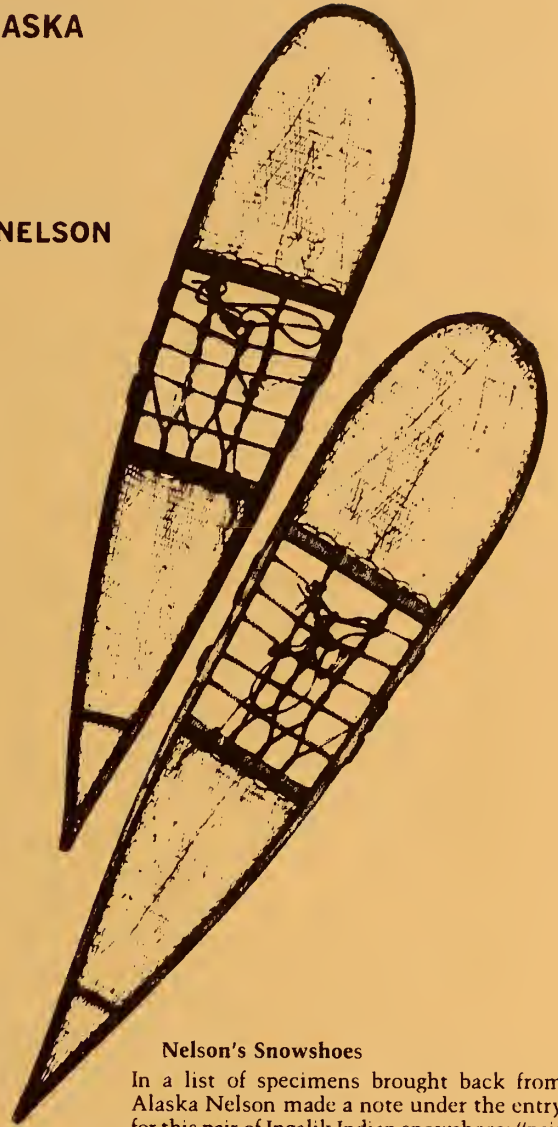
# A SLEDGE JOURNEY IN THE DELTA OF THE YUKON, NORTHERN ALASKA

BY E.W NELSON

During the four years dating from the middle of June 1877, the writer was stationed at St. Michael's Redoubt [station] on Norton Sound, Alaska. From this point, several extended sledge [dog sled] expeditions were made in different directions. The first of these expeditions was made during December 1878 and January 1879 and covered the territory lying between the mouths of the Yukon and Kuskokwim rivers....

My trip was made in great haste, with the most inadequate means, and with no instrument but a compass....

The arrangements for the expedition were very simple: a stock of goods consisting of leaf tobacco, ammunition, beads, brass jewelry, needles, and other small wares were selected to be used in buying ethnological specimens and to pay the incidental expenses of the trip among the natives.



Nelson's Snowshoes

In a list of specimens brought back from Alaska Nelson made a note under the entry for this pair of Ingalik Indian snowshoes: "pair used by myself on two expeditions about 1800 miles."

*On December 2, 1878, Charles Petersen, a fur trader living on the lower Yukon.... arrived at St. Michael's with four dog sledges three of which were to be laden with goods for the fur trade, one being placed at my disposal. On the 4th, at about 6 a.m. long before daybreak, we filed out of the enclosure and were off through the snow fog which filled the air, and marked a temperature in the vicinity of zero and still falling rapidly. With difficulty each sledge followed the one in front, and the leading team had an Eskimo ahead as a guide over the trackless snow....*

*December 5th, at 1 a.m., we arose, and after a hasty breakfast of bread, tea, and dried fish, left our camp and proceeded directly to the coast, along which we travelled when the darkness was rendered more intense by the rising wind filling the air with flying snow. This forced us to hug the shore closely, and make our*

way by following the line of driftwood which marks the beach in the vicinity of the Yukon mouth.... As darkness was drawing near, we reached the village of Fetkina....

In the evening I announced through my interpreter my desire to buy samples of all the tools and implements used by the villagers, as well as toys and ornamental carvings. This unusual request produced quite a flutter of excitement and a number of interesting articles were secured. Some of these must have required a considerable expenditure of skill and labor, yet they were parted with at what appeared to be a ridiculously low price....

December 7th, we rounded a spur, and passing some natives at work on their fish-traps, drove swiftly up to the station of Andreievsky, amid a great din of yelping dogs and shouting men. We remained at the station for the next three days, preparing for our start into the little known country to the south, where the main results of the trip were to be obtained.

Andreievsky consists of a group of a half-dozen log buildings forming a square, and joined together by a stockade; it is an important center of the fur trade on the lower Yukon. Mink, land-otter, white and red foxes. with a few black bear, wolves, beaver, and marten, comprise the peltries secured here -- the mink largely outnumbering all the other kinds....

[One year later Nelson returned to Andreievsky on a second sledge journey. During this visit, he had the opportunity to witness the Bladder Festival which he described in his Smithsonian Report as follows:]

At a little village on the Yukon near Andreievsky, on January 17, 1881, I found the people performing their final dance at the close of the bladder feast.

The bladders used in this festival are supposed to contain the shades or inuas of the slain animals. After an animal is killed the hunter carefully removes and preserves the bladder until the time approaches for the festival. When this time arrives songs are sung and the bladder is inflated and hung in the Qasgiq [men's house]; the shade of the animal to which the bladder belonged is supposed to remain with it and to exist in the inflated bladder when it is hung in the Qasgiq.

The feast is given for the purpose of pleasing and amusing the shades and thus propitiating them, after which the bladders are taken to a hole in the ice and, after being opened, are thrust into the water under the ice so that the shade may return to its proper element. The shade is supposed to swim far out to sea and there to enter the bodies of unborn animals of their kind, thus becoming reincarnated and rendering game more plentiful than it would be otherwise. If the shades are pleased with the manner in which they have been treated by the hunter who killed the animal they occupied, it is said they will not be afraid when they meet him



in their own form and will permit him to approach and kill them again without trouble.

(E.W. Nelson, The Eskimo About Bering Strait,  
B.A.E. 18th Annual Report, 1900.)

On the 11th, we left Andreievsky and descended the river to Kashutok. On our way to this place, we found that the cold was sufficient to render the snow crisp and hard, and make the iron runners of our sledges drag almost as if on sand. To obviate this we halted and had a pair of false runners made of the hard sap or outer part of the stick of young fir....

We found the country between the Kusilvak and Askinuk mountains low but very hummocky and difficult to traverse.... In the evening we crossed four lakes lying at the base of the Askinuk mountains, and arrived at a miserable Eskimo village of two huts...., in the midst of a terrific storm of wind and snow which was so fierce just before we reached the village that my sledge was torn from me, hurled over several times and broken in many places. We found our quarters in an earth-covered hut, less than four feet high in the center and sloping on every side....

December 14th, leaving these mountains, we crossed a range of low hills to the south and arrived at Askinuk, where we were welcomed by the entire population, numbering nearly 200 Eskimo. The people here were among the most hospital I met on my expedition. As we approached, their smiling faces made a pleasant sight, and we were scarcely in the village before our dogs were unharnessed and the sleds placed upon the framework, and were invited into the large roomy Qasgiq, or council house.

While I wrote up my journal, the natives were practicing songs to be sung at some festival to be given later in the winter. Before I retired a very large number of fine ivory carvings and other objects of great ethnological interest were secured, in exchange for small articles. Many of the carvings obtained here are remarkable for their elegant finish and the excellent but somewhat grotesque character of the workmanship....

On December 21st, we...made a hazardous passage for several miles along a narrow ice-foot which bordered the seaward face of the mountains. Finally we were forced to abandon this track, as the shelf narrowed so that it would have been impossible to avoid falling into the open sea, which surged back and forth below. We were caught in a terrific wind and snowstorm on the mountains, and by great good fortune reached the village of Tanunak at Cape Vancouver, with only a few slight frostbites....

On December 25th, a heavy rain commenced, which drenched us through in spite of our seal-gut waterproofs; and on the 26th it continued with great violence, accompanied by wind. All day we plodded drearily on through the rapidly melting snow and the pools of water, reaching a shelter....just as darkness came on. Here we stopped over a day....and dried a portion of our clothing by getting some of the natives to wear it for us, and thus evaporate some of the moisture from it by the heat of their bodies....

From Chalitmuit to Koolvagavigamiut the coast country is very low, and we found large areas covered with a heavy layer of sea ice forced up by the late storms. Blocks of ice from three to four feet thick, which were found several miles inland in many places, showed how extensively the sea had overflowed this area.

The village of Chalitmiut narrowly escaped being razed by the ice which was carried about it by the water, and on the night of December 29th, the people sat upon the roofs of the houses, driven from the interior by the three or four feet of water which poured in and compelled the occupants to cut their way through the roof in some cases. The loss of entire villages with their people is not rare on the lower Kuskokwim country during storms of this character, and during spring freshets.

The village of Kongiganagamiut contains about 175 people, and is one of the places which has seen but one or two whitemen since the occupancy of the country by the Russians. The children, as in many other places visited, were terrified at my approach, and rushed shrieking to their mothers as if an ogre were about to seize them. From Kashunuk to this last named village, walrus are taken more or less commonly along the coast, and the natives are very expert at ivory working, many of their carvings showing evidence of great artistic skill, considering the rude tools used by the workmen....

A series of low hills thinly clad with spruces was crossed, and before us lay the Yukon with its white snow-covered path winding away to the horizon, and facing us the rugged but not high mountains which line the river.... From this point we ascended the Yukon to Paimiut, the upper limit of the Eskimo on this river, and then returned to the sea coast and St. Michael's by way of the well-known and much-travelled river route.

During this expedition, over 1200 miles were traversed, the same dog team being used throughout....

[At the end of his journal, Nelson summarizes his reactions to the terrain, the people, and the culture which he has observed during the previous, intense two month trip. His summary is a classic description of the Bering Sea Eskimo of the late 19th century, and expresses well why Nelson's work among them was both timely and important.]

The general characteristic of the country over most of the region between the lower Yukon and Kuskokwim is that of a barren waste, whose streams and lakes with the bordering seashore support a population of over 3000 pure-blooded Eskimo. These are among the most primitive people found in Alaska, and retain their ancient customs, and their character is but slightly modified by contact with whites. They present one of the richest fields open to the ethnologist anywhere in the north. They retain their complicated system of religious festivals and other ceremonies from ancient times. Their work in ivory and bone bears evidence of great skill, and all their weapons and utensils are well made.

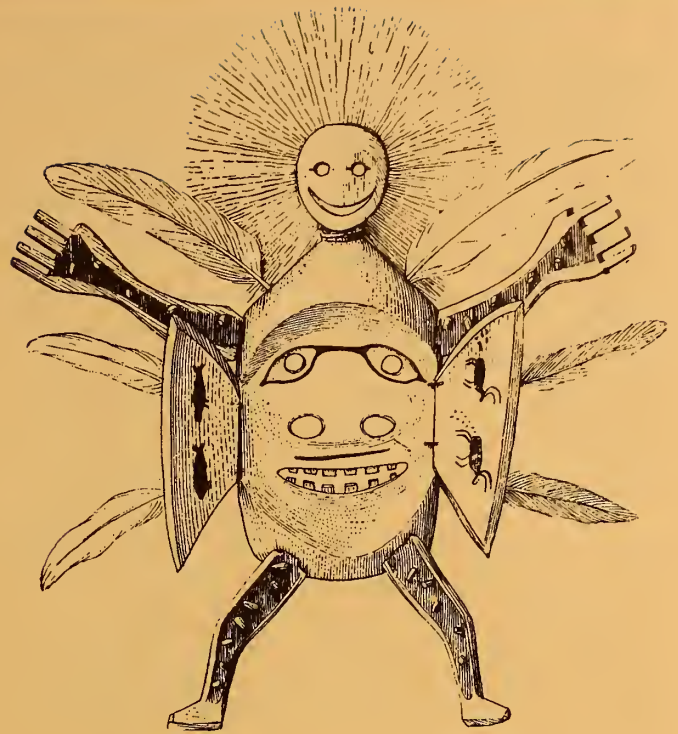
Time and space forbid my entering more in detail here upon many points of interest in regard to this region. In reports upon which I am now engaged, however, these subjects will be duly elaborated.



## NELSON'S JOURNAL:

Questions for Students to Answer

1. Did Nelson make elaborate preparations for his trip? Why or why not? How did Nelson travel? Who went with him? What did he take along to use as money? For what purpose was this "money" used?
2. In his journal, Nelson describes in quite matter-of-fact detail a number of difficulties he faced in the course of his journey. Briefly describe at least two of these difficulties and explain how Nelson managed to deal with them.
3. Judging from Nelson's behavior in the face of these difficulties, what conclusions can you draw about his character and personality?
4. In a number of places in this account, Nelson describes the Eskimo people he encountered. From these descriptions, what conclusions can you draw about Nelson's attitude towards the Eskimo? Write down evidence to support your answer(s).
5. After reading this journal (and hopefully viewing the exhibit at the National Museum of Natural History, Inua: Spirit World of the Bering Sea Eskimo), how would you describe the major purpose of Nelson's 1879 Yukon sledge journey? How would you evaluate Nelson's contribution to our understanding of Eskimo culture?

**"SPIRITS" ON EXHIBIT**

Inua: Spirit World of the Bering Sea Eskimo continues at the National Museum of Natural History/National Museum of Man through January 2, 1983. The exhibit provides a unique opportunity for students to learn about a fascinating Eskimo culture and people whose descendants continue to live in Alaska today. Organized by anthropologists William W. Fitzhugh and Susan A. Kaplan, the exhibit provides an important new view of Eskimo culture, which has been seen for too long through the stereotypic pictures of snow igloos and small families moving across dark frozen tundra to search for scarce game. Unlike the Northern Canadian Inuit (for example, the Netsilik featured in the M.A.C.O.S. films), 19th century Alaskan Eskimos in the Yukon/Kuskokwim delta lived in large permanent settlements of semi-subterranean sod and wood houses; relied largely on fish, birds, and small mammals for food; had a complex ceremonial life with elaborate songs, dances, masks, and costumes; and created an oral tradition of story and myth rich in symbolism and drama.

(continued)



The Inua exhibit presents a comprehensive view of 19th century Bering Sea Eskimo life, its prehistoric roots, and its modern legacy. Most of the finely crafted hunting implements, domestic utensils, and ceremonial objects in this exhibition were collected by Edward W. Nelson, a young naturalist sent to the Alaskan frontier in 1877 to gather weather information for the U.S. Army Signal Service, and to serve, unofficially, as an observer for the Smithsonian Institution. While stationed at St. Michael, Nelson traveled extensively in the unmapped and unexplored territory along the Bering Sea coast and in the interior of the Yukon/Kuskokwim region (see p.7). During his four-year stay, he recorded his observations not only of the region's natural history, but of the customs and life of the Eskimos of western Alaska. His collections, photographs, and notes caught Bering Sea Eskimo culture at a time when the Eskimos had been little affected by contact with American whalers and traders, and prior to the rapid cultural changes brought on by gold rushes and the spread of Christianity in the region at the end of the 19th century.

The exhibit itself is divided into five major sections. Among the Animals focuses on the Bering Sea Eskimo hunter's weapons and techniques. Here students can learn of the Eskimo hunter's all important belief that his people's physical and spiritual well-being depended on the respect he showed his prey and its spirit, or inua. Around the Hearth brings the visitor into an individual semisubterranean sod and wood home of the Bering Sea Eskimo woman who spent many hours preparing food, manufacturing clothing, and caring for young children. With the Spirits is designed to simulate the Qasigiq, or men's house. Larger than other houses, this rectangular, earth-covered log structure with its high pyramidal roof was the center of Bering Sea Eskimo social, religious, and ceremonial life. It served as both the principal dwelling and workplace for the village men, but was also the place where festivals and social gatherings were held for the en-

tire community and guests from other villages.

A fourth major section of the hall, Neighbors, relates the Bering Sea Eskimo to the people surrounding them who spoke different languages, followed different ways of life, but had resources used by Bering Sea peoples.

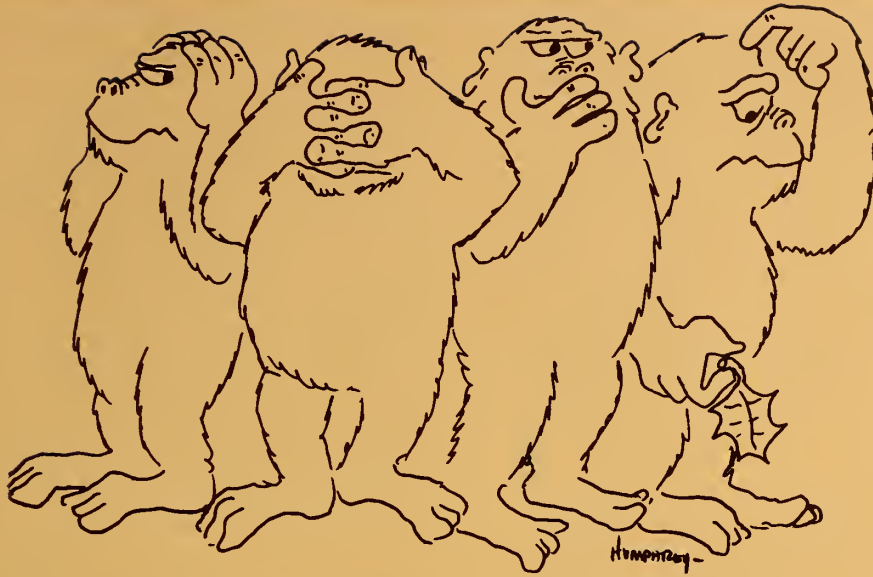
In the final section, Past and Present, the exhibit relates 19th century Bering Sea Eskimo culture with prehistoric Arctic cultures and modern Eskimo artists. A "gallery" of modern Eskimo art reflects both the deeply rooted traditions of Eskimo culture and the influence of Western civilization.\*

(see p. 15 for special school programs on the Inua exhibit.)



\* This description was adapted from the exhibit pamphlet prepared by Meredith Weber under the direction of William Fitzhugh and Susan Kaplan.





## Do You Know?

- Bones of a mammoth, a species which became extinct about 10,000 years ago, were discovered last March by a University of Maryland student at a construction site outside Washington, D.C. A unique find along the Eastern seaboard! Dennis Stanford and Gary Haynes of the Smithsonian's Department of Anthropology retrieved the remains (see "Around the Mall" Smithsonian Magazine, August 1982).
- To obtain an excellent illustrated booklet describing the importance of human skeletal remains in understanding our past, Human Bones and Archeology by Douglas Ubelaker, available free of charge, write to Dr. Larry Aten, National Park Service, Inter-Agency Resource Management Division, Washington, D.C. 20240.
- A new career publication, Getting A Job Outside the Academy, advising anthropologists how to apply their special skills for nonacademic employment, is available from the American Anthropological Association, 1703 New Hampshire Ave., N.W., Washington, D.C. 20009 (members, \$2.50; nonmembers \$4.00).
- The April issue of Science 82 contains two articles of note: "On the Life of Mr. Darwin", a portrait by Roger Bingham; and "Evolution Since Darwin" by Boyce Rensberger discussing Darwin's theory of gradualism and the more recent evolutionary theory of "punctuated equilibria" associated with Stephen Jay Gould and Niles Eldredge.
- Baboon observers of Amboseli National Park are noting that high-ranking females promote earlier independence of offspring and tend to bear more female infants. This behavior appears to ensure better chances of infant survival according to Joan Luft and Jeanne Altmann in "Mother Baboon" Natural History (September 1982).
- Mary Leakey delivered a recent lecture at the National Museum of Natural History detailing her discovery of over 60 footprints at Laetoli made by three 3.6 million year-old individuals. Dr. Leakey spoke of the "deplorable tendency in paleo-anthropology" to "rush into print" with new species for each new fossil find. Specifically referring to Donald Johanson's *Australopithecus afarensis*, Dr. Leakey described "Lucy" as bearing very strong resemblance to the original *Australopithecus africanus*. The "First Family" finds, however, "are very different", are from an entirely different stratigraphic level from

"Lucy", and represent "perhaps another taxon." But Johanson's decision to use Leakey's fossil from Laetoli as the type fossil for the "First Family" taxon was very "unfortunate" since Laetoli is 1,000 miles from the Afar region where the "First Family" was found. Dr. Leakey concluded her lecture with the following statement: "I believe Johanson's original interpretation that he had found two different creatures probably the correct one."

- From Computation to Recreation Around The World by Sam Dolber is a unique book for students of all levels. Primarily devoted to board and table games, students practice logical thinking and learn to appreciate contributions of other cultures. Available from Math Aids, P.O. Box 62, Dept. SC, San Carlos, CA 94070 (\$6.95 plus \$1.00 postage).
- The Teaching Anthropology Newsletter, an occasional publication to promote precollegiate anthropology in Nova Scotia, provides curricula information to teachers, exchange of ideas, and communication between teachers and professors of anthropology. For further information write to Editor, Paul Erickson, Department of Anthropology, Saint Mary's University, Halifax, Nova Scotia, Canada B3H 3C3.
- Thread of Life: The Smithsonian Looks at Evolution is a new publication that will be available in the Smithsonian museum shops and distributed nationwide to bookstores by W.W. Norton & Company.

## FEMALES UP FRONT (continued from p.3)

Fisher sees the origins of bonding and the development of language, spirituality, and more complex technology and social structure. Though Fisher is in agreement with Tanner that there is no evidence of big-game hunting among the early hominids, her stress on female dependency on meat and support from males would probably lead to Tanner's criticism that she relegates our earliest hominid female ancestors to a passive role. Rather, Tanner asserts, females as well as males were intelligent and active participants. Hrdy would agree.

Theories regarding evolutionary behavior generate debate for the obvious reason that there is still so much unknown. Each of these authors has attempted to fill in missing "female" links based on evidence from primate studies, fossils, archeological investigation, genetics, molecular biology, hunting/gathering societies, and cross-cultural research. Fisher offers a lively and well-argued reconstruction which is a bit over-simplified. Hrdy's numerous examples of primate social behavior and social systems make for interesting reading but can create confusion as one tries to find a logical thread of argument explaining the emergence of human social systems. Tanner's version of the emergence of human behavior is very persuasive but gives little credit to males for their part in the development of becoming human.

All three books are well worth reading and comparing. They provide "food for thought" in their effort to explain the universal prevalence of male dominance and female submission, and the role of female sexuality in our ancient past.

Ann Kaupp



## SOMETHING FOR STUDENTS

Washington, D.C. offers many unusual opportunities for teachers and school groups interested in anthropology. The Anthropology Resource Center for Teachers, located in the Naturalist Center of the Museum of Natural History, includes a section on D.C. area resources describing many of these opportunities -- in museums, zoos, research laboratories, embassies, and religious institutions. Below are listed several opportunities teachers may want to take advantage of this year.

Potomac Overlook Regional Park (3845 Marcy Rd., Arlington, VA 22207) is a 100 acre wildlife sanctuary with a nature center offering a variety of educational programs for students including "Indians -- Man and His Environment". In this 1 1/2 hour program, Chief Naturalist Earl Hodnett takes students (elementary through high school) to the location of an Indian village site and through slides describes Indians who inhabited the area and the artifacts which have been discovered. For additional information contact Earl Hodnett at (703)528-5406. At least two weeks advance notice is required.

Via Gambaro art gallery (416 11th St., S.E., Washington, D.C. 20003) specializes in contemporary American Indian art. Slide and lecture programs at the gallery are offered free-of-charge to school groups on the arts and crafts of the American Indians including an overview of American Indian history and culture. Lectures are given by American Indians and other specialists. Additional craft demonstrations are also possible. The program lasts approximately 40 minutes with a question and answer session. For further information contact Retha Gambaro at (202)547-8426.

The Naturalist Center located in the National Museum of Natural History houses 14 Odyssey programs from the anthropology/archeology public television film series. The films include: The First Americans; Franz Boas; The Incas; Other People's

Garbage; The Chaco Legacy; The Ancient Mariners; Ben's Mill; Dadi's Family; Little Injustices: Laura Nader Looks at the Law; Margaret Mead: Taking Note; Maya Lords of the Jungle; Myths and the Moundbuilders; On the Cowboy Trail; and The Three Worlds of Bali.

These programs, on videotape cassettes accompanied by the Educator's Guide to Odyssey, can be previewed in the Naturalist Center during Center hours (Wed.-Sat., 10:30-4 p.m.; Sunday, 12-5 p.m.). For further information call the Manager at 357-2804.

### Inua Exhibit: School Programs (continued from page 12)

School tours. All tours must be scheduled by mail. For information call 357-2747. A teacher's guide and exhibit pamphlet are sent to teachers requesting a tour.

Films. Shown weekends, September 11-January 2; and November 26, December 27-31. 1:00-2:00 p.m. Gallery Theater, ground floor.

Saturday: Rope to Our Roots  
The Living Tundra

Sunday: Village of No River

The above films may be shown to middle and secondary school students as part of a weekday school tour.

Video. Viewings on dance, music and history of modern Bering Sea Eskimos, Wednesday-Sunday, noon-4:00 p.m. in the Naturalist Center.

(Paul Epstein, anthropology teacher at Barrie Country Day School, has developed a self-teaching unit for 7th-9th graders for the Inua exhibit. For copies, call Ruth Selig, 357-1592, Monday/Wednesday 10 a.m.-4 p.m.)

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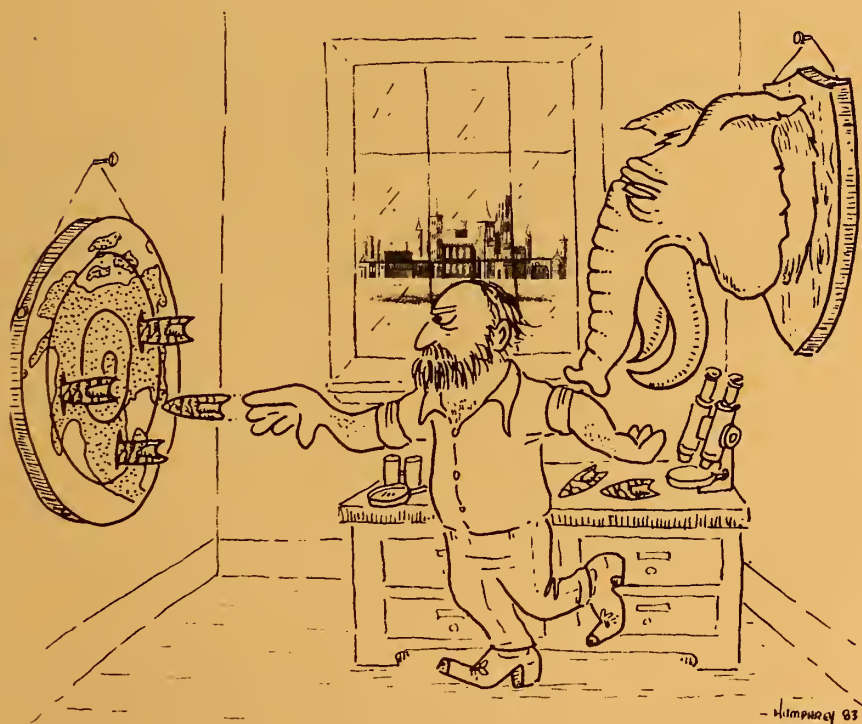
vol. 5 no. 1

winter 1983

## BONES AND STONES - - OR SHEEP?

"If I could find one clearly stratified site with some busted mammoth bones, a couple of crude flake tools, and a single human bone, all in unquestionable association with a charcoal hearth dated 19,500 years ago -- I'd have my dream."

Dennis Stanford, February 1983



What keeps a man looking a lifetime for evidence he knows he may never find? What keeps him excavating sites which turn out to be "dead ends", hiring research associates to disprove his latest theory, or travelling to South America and China to find a single tantalizing clue? A dream, or maybe just a hunch that he might turn out to be right

after all. For if Dennis Stanford finds the evidence he has been searching for during the last twelve years he will unravel one of the major unresolved mysteries in North American Archeology: when did the first human beings arrive in the Western Hemisphere?

(continued on p.2)

No serious archeologist today questions that Native American populations originated from a generalized Mongoloid racial stock that developed in Eastern Asia and Siberia during the late Pleistocene. Sometime after 50,000 years ago, hunting bands entered the New World following the herds of mammoths and mastodons, camels and horses teeming across the 1,000 mile wide grassy plain exposed in the Bering Sea when Ice Age glaciers caused a drastic reduction in sea level. But when did the great crossing first take place?

"Recent" history is clear. As of 11,000 years ago human hunters inhabited virtually all of the Americas. Sophisticated "Clovis" spear points from over 40 sites in North and South America serve as unmistakable evidence that humans were hunting mainly, or exclusively, mammoths and perhaps bison. But the sudden appearance and rapid spread of Clovis culture remains an archeological mystery. 1,000 years after the first appearance of Clovis spear points, the fluted point technology has spread across two continents and most of the huge animals that were once hunted have become extinct. Were the Clovis hunters the first Americans? If they were, why have no Clovis points been found in Eastern Asia or Northern Siberia? If the Clovis technology was invented in America, or as Dr. Robert L. Humphrey has suggested, on route to America where it spread among pre-existing populations, when did these earlier migrants first enter the continent? If humans were here before 11,000 years ago -- and Dennis Stanford firmly believes that they were -- how can archeologists prove it?

The Yukon territory's Old Crow Basin yielded a clue in the late 1960's when a caribou bone that had been worked by human hands into a scraping tool was found to be 27,000 years old. The date led archeologists to propose that pre-Clovis people made use of a bone technology for many tools. Stone was scarce, and bone tools were readily available from butchered carcasses.

In the mid-1970's Dennis Stanford painstakingly excavated large deposits of broken mammoth bone at two Colorado sites called Dutton and Selby. The animals had died before 11,000 years ago, and their disarticulated broken bones seemed to bear evidence of human activity. "At Dutton in the summer of '76, looking down at a pile of busted camel bone in a 12 foot deep excavation, with a stone tool found at a level below 16,000 years old, I thought I had found it." Stanford and his colleagues hypothesized that the bones were broken for marrow by humans smashing heavy stone boulders onto them. Today, the stone tool has been mapped as lying at the bottom of a gopher hole and the busted bones have been more carefully analyzed. Stanford is no longer sure that Dutton is the dream site he had once thought.

Proposing that pre-Clovis people depended on a bone technology was risky, because broken and polished bones, unlike stone Clovis points can be produced by natural forces. Though willing to go out on a limb and willing to risk an innovative hypothesis, Stanford was not willing to close his mind to this possibility -- even if it meant disproving the bone technology theory. For this attitude, and for his painstakingly meticulous excavation and analysis, he is esteemed among his colleagues who watched with interest as Stanford entered a second, highly innovative phase of investigation through experimental archeology.

In order to eliminate non-human explanatory factors, Stanford and his associates sought to find out what other natural agencies could produce similar results on bone. At the same time, in order to see if humans could indeed produce and use bone tools he began to butcher dead elephants, and make tools from the bones -- of Ginsberg, Maggie, and Tulsa.

(continued)



These large elephants were dead when Dennis arrived on the scene ready to simulate Pleistocene mammoth butchering. The early, carefully documented results were encouraging: bones broken over stone anvils resembled broken bones at Dutton and Selby; the resulting bone tools worked extremely well in carving up skin and meat; and the wear, polish, and striations matched those on ancient bones. In fact, Stanford remembers, "one flaked bone from Ginsberg looked identical to the 27,000 year old bone tool from Old Crow."

But many archeologists remained skeptical, and Stanford was eager to face the skeptics head on. In the mid-1970's a graduate student at Catholic University, Gary Haynes, saw Stanford's evidence for pre-Clovis bone technology, and expressed serious skepticism. Stanford encouraged Haynes to try disproving the bone technology theory, and supported his plan to feed fresh bones to the Kodiak bears and African lions at the National Zoo. This research, along with studies of captive wolf colonies that were fed whole carcasses of deer and moose, produced for Haynes his first clear evidence that the Ice-Age "tools" might instead be the results of gnawing by carnivores which polished and broke the bones.

From those first Zoo experiments evolved a remarkable professional relationship: Dr. Stanford developed hypotheses and Dr. Haynes searched to disprove them. Both of them published papers advancing the science of archeology and of taphonomy -- the study of what happens to bones after an animal dies in the wild, a subject of increasing importance to archeologists. For several years, in summer and in the "dead" of winter, Haynes travelled to the Canadian Northwest Territories to watch bison herds preyed on by wolves in order to document what happens to carcasses in the wild. More recently Haynes has been dispatched to Africa to record the behavior of elephant herds and to describe modern elephant bone accumulations.

What Haynes discovered was exactly what Stanford thought he might find: evidence that natural agencies could produce the spiral fractures, the polish, the wear patterns, and the striations on bone archeologists once thought reflected human activity. Wolves chewing on big-game carcasses produce polish as well as tooth marks; bison wallowing in the dust actually fragment and polish previously deposited bone; carnivores break bones to get at marrow just as humans do; and gravel produces the scratches once thought to be clear-cut evidence of human tool use. Broken mammoth bones, previously thought too massive to be broken by natural causes, are explained by Haynes' research documenting that elephants walk over and break the bones of dead elephants. The resulting broken bones look very much like broken bones in Dennis Stanford's office taken from the Dutton and Selby sites. Even the flaked tusk "tools" have been found in the wild, the result of elephants knocking into one another as they struggle to get to water in the dry season.

At times, Stanford says, he feels "like just walking out, leaving the bones and stones behind, and going to herd sheep." He and Haynes agree that humans and carnivores can produce closely similar evidence for future archeologists to excavate, and it may be impossible in many cases to differentiate the exact circumstances of bone breakage in the past. But by 1982 Stanford had pretty much concluded that the bones at Dutton and Selby did not "show unmistakable evidence of human activity." Herding sheep, however, wasn't going to solve the problems.

Instead, Stanford decided to embark on a Chinese-American joint effort which would include research in the High Plains of North America

## TEACHER'S CORNER: "SEEKING THE FIRST AMERICANS"

The following is a teaching film guide for "Seeking the First Americans" produced in 1980 as part of the PBS ODYSSEY television series. The film features Dennis Stanford, Smithsonian archeologist (see p.1 in this month's issue of Anthro-Notes). The film guide below was adapted from materials originally prepared for the PBS Educators Guide to Odyssey written by Dr. Alison S. Brooks, Ruth Selig and JoAnne Lanouette. For film rental information contact: Documentary Educational Resources, 5 Bridge St., Watertown, MA 02172; (617)926-0492.

### FILM SUMMARY

By 11,000 years ago the Clovis people, so named for their distinctive stone tools first found by archeologists near Clovis, New Mexico, had spread across North America hunting the last Ice Age herbivores--the mammoths, mastodons, bison, camels, and horses. These people were effective hunters and within 1000 years, most of these huge animals were extinct.

Were the Clovis people the first to arrive on the North American continent, travelling from Asia over the Bering land bridge? If not, when did people first enter North America? Although evidence of pre-Clovis settlement is scattered and inconclusive, a strong challenge is being mounted to the traditional view that the Clovis people were the first Americans.

Dr. Dennis Stanford believes that the Clovis technology was invented by people who had long before arrived in North America, and that the ideas spread quickly through the already existing population. Dr. Vance Haynes believes that Clovis technology was brought from Asia by the first Americans. The film shows Stanford and Vance Haynes debating their views as they examine new evidence for pre-Clovis people and attempt to understand the big game hunting way of life.

Definite proof of pre-Clovis man is elusive. The archeologist must locate a site firmly dated to more than 11,000 years ago containing unmistakable evidence of human activity. As yet, no such site has been found. But recent research has created a new understanding of where to look and what to look for, and so may eventually lead archeologists to pre-Clovis sites, extending our knowledge of early human development.

### BEFORE THE FILM: BACKGROUND INFORMATION

#### Dating Techniques

How does an archeologist actually establish dates for early man sites in America? In the film three major techniques are discussed: stratigraphic study, analysis of extinct animal remains, and radiocarbon dating.

In stratigraphic analysis, geologists can analyze a sequence of undisturbed soil levels, tracing each level back to the environment under which it was deposited. The film shows a sequence beginning with the present day's farmland surface and going down 15 feet to a layer of stream gravel deposited at the time of Clovis man - 11,000 years ago.

Extinct animals can also give us clues to the dates of archeological sites, if scientists have already established when different species died out. In the case of the giant Ice Age animals, scientists know that all except the bison died out at the end of the Ice Age-- probably due to a combination of changing environmental conditions and overkill by human hunters.

Carbon-14 is a dating technique used for determining the age of once living material such as bone or wood. The technique yields a specific date in years by measuring the amount of decay of a radiocarbon isotope of carbon contained in the material.

(continued)



### During the Film: Questions Students Can Think About

- Where did the earliest Americans come from and by what route?
- How did the early big game hunters obtain their food in North America? What tools and techniques did they use?
- Describe several different ways archeologists try to understand the past: excavation of sites, experimental replication of stone chipping and bison butchering, collecting of vegetable foods, feeding bones to zoo carnivores.
- Explain the debate between Stanford and Haynes over when people first arrived in North America and how fast they spread.
- What is the evidence for pre-Clovis people? What would constitute solid proof of their existence?

### After the Film. Questions and Activities

1. Why are archeologists searching in Siberia, Alaska, and Northern Canada for clues to the origins of the first Americans?
2. What qualities do you think make a good archeologist? What skills and training would be useful to an archeologist searching for early humans in America?
3. Have students save all the bones (meat, fish, poultry) from a week of meals at home. They should roast half the bones at 300° and boil the other half (1/2 hour), then bring in both halves in 2 plastic bags. Each student exchanges bags with a classmate and then examines its contents. Each student tries to identify what animal each bone came from. What part of the animal is the bone from? Is the bone cut or broken? Are there any knife marks or tooth marks? How are the boiled bones different from the roasted ones? Can you tell if people roasted or boiled their meat? Students with dogs at home can allow the family dog to chew on some large bones. Have students then examine the resultant markings.
4. Dennis Stanford and Vance Haynes differ on two crucial questions. Where did Clovis technology originate? How did it spread across the Americas in less

than 1000 years? For each of these questions, ask students to explain the issues being debated.

5. Dennis Stanford states at one point in the film: "For years we've been looking on 11,000 year old terraces. What have we been finding? 11,000 year old sites -- isn't that odd?" How do expectations and preconceptions determine what an archeologist finds? Cite evidence from the film that chance discovery and carefully reasoned looking each play a role in successful archeological work.

### For Further Reading:

Humphrey, Robert L. and Dennis Stanford, eds. Pre-Llano Cultures of the Americas (1979). Anthropological Society of Washington, P.O. Box 57400, Washington, D.C. 20037. (\$6.00)

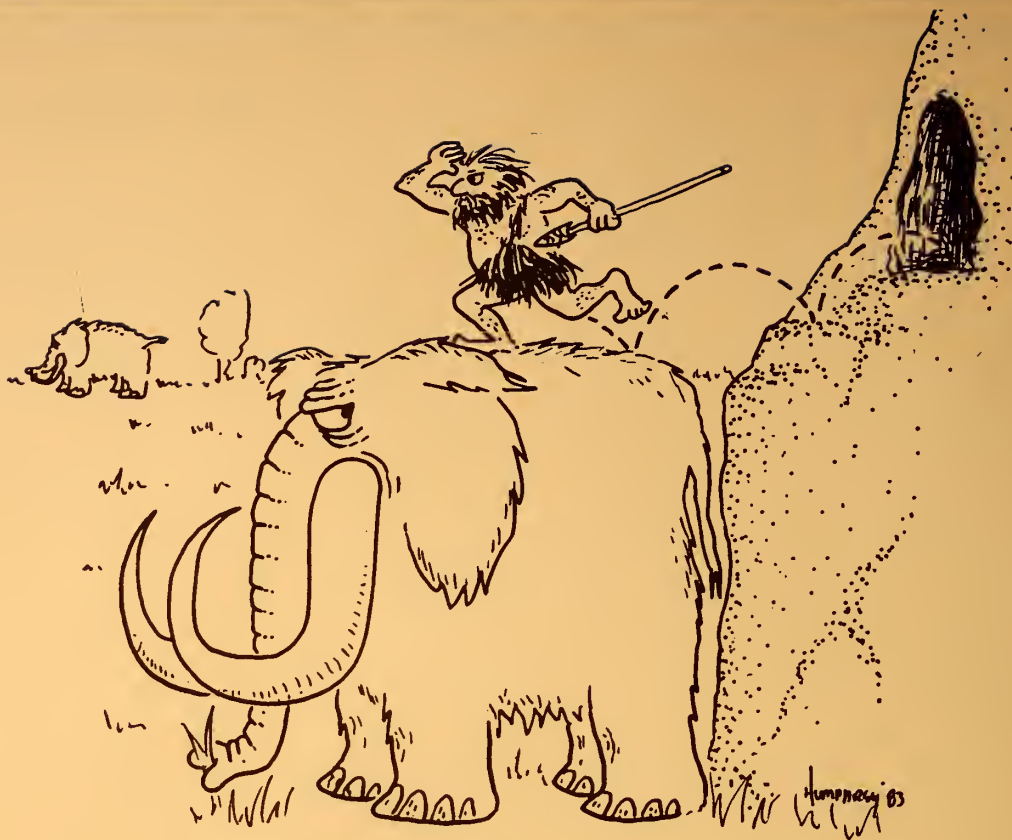
Includes article by Dennis Stanford, along with useful introduction and conclusion.

Stanford, Dennis. "Bison Kill by Ice Age Hunters," National Geographic 155(1):114-121, 1979.

Short but well-illustrated article showing 10,000 year-old bison kill, experimental tool manufacture and use, and experimental elephant butchering.

Chedd, Graham. "On the Trail of the First Americans," Science 80 (March/April):44-51.

Excellent article based on research done for the "Seeking the First Americans" film.



## UPCOMING EVENTS

March 15: "The Performer-Audience Connection: Metaphor in Dance and Society" by Judith Lynne Hanna (Univ. of Maryland). Anthropological Society of Washington (ASW) meeting. Naturalist Center, Museum of Natural History, 8:15 p.m.

March 19: "Rediscovered Empire: New Findings from Ebla." All day archeology slide-illustrated seminar on the discovery of the royal archives - 17,000 inscribed cuneiform tablets - of Ebla in northern Spain by archeologist/discoverer Paolo Matthiae and colleagues. Seminar presented in collaboration with National Museum of Natural History's Department of Anthropology and in cooperation with the International Institute for Mesopotamian Area Studies. For ticket information contact the Smithsonian Resident Associates Program office at 357-3030.

March 21: "Life with Lucy" by Donald Johanson (founding director of the Institute of Human Origins at Berkeley).

Evening lecture sponsored by Smithsonian Resident Associates, Audubon Naturalist Society and Friends of the National Zoo. Embassy of Ethiopia is offering a reception on March 20th. For ticket information for lecture (given twice on the evening of the 21st) and/or reception, contact Smithsonian Resident Associates Program office at 357-3030.

May 2: "Rescue Archeology in England" by Peter Addyman (Director of the York Archeological Trust). Slide lecture of recent find - the largest and best preserved remains of a Viking settlement outside of Scandinavia - by rescue archeologists working in the Medieval walled English city of York. 8 p.m. Call 357-3030 for ticket information.

May 4 - June 4: "Archeological Discoveries in Historic Annapolis" by Mark Leone (Univ. of Maryland) and staff of the Archeology in Annapolis Project. Course consists of 4 lectures and 4 Saturday on-site digs. For further information call Smithsonian Resident Associates Program office at 357-3030.



## FOR JOINERS ONLY!

Do you wish you had something to do other than watch MASH reruns weekday nights? Why not expand your interests and contacts in your field and join an organization or society. Below are listed not only anthropology but other social and natural science organizations which publish journals and newsletters, announce training programs and job openings, and offer stimulating lectures, symposia and conferences. So, if you find you may need some brushing up and stimulation -- be a joiner.

AMERICAN ANTHROPOLOGICAL ASSOCIATION  
1703 New Hampshire Ave., N.W.  
Washington, D.C. 20009  
(202)232-8800

AAA is the central professional organization of anthropologists. Members receive the quarterly journal American Anthropologist and the monthly Anthropology Newsletter which includes a job Placement Service listing. Also available are career publications, the Guide to Departments of Anthropology that describes facilities and programs at over 250 schools and museums in the U.S. and Canada, and a Summer Field School List. In addition, the AAA coordinates the activities and publications of societies representing more specialized disciplines such as the American Association of Physical Anthropologists; American Ethnological Society; American Folklore Society; Society for American Archaeology; Society for Applied Anthropology; and Society for Historical Archaeology.

AMERICAN PSYCHOLOGICAL ASSOCIATION  
1200 17th St., N.W.  
Washington, D.C. 20036  
(202)833-7600

Founded in 1892, the APA is the major psychology organization in the U.S., its purpose "to advance psychology as a science, as a profession, and as a means of promoting human welfare." High school teachers may become High School Teacher Affiliates and qualify

for special rates to the Association's journals and publications including the official journal American Psychologist and the monthly APA Monitor as well as publications regarding careers and more specialized areas of psychology. Teachers also receive the monthly High School Psychology Teacher newsletter which includes teaching activities and curriculum materials, some useful in anthropology classes.

ANTHROPOLOGICAL SOCIETY OF WASHINGTON  
P.O. Box 57400  
Washington, D.C. 20037

ASW was founded in 1879 by John Wesley Powell, then Director of the Smithsonian Institution's Bureau of Ethnology, to "encourage the study of the Natural History of man especially with reference to America and shall include archeology, somatology, ethnology, and philology." ASW continues to promote the scientific study of man through its newsletter, publications, and open meetings held the third Tuesday of each month during the academic year.

ARCHAEOLOGICAL INSTITUTE OF AMERICA  
53 Park Place  
New York, New York 10007  
(212)732-6677

AIA, a non-profit organization, was established in 1879 to promote research in the U.S. and foreign countries. The AIA publishes the bimonthly Archaeology magazine and the American Journal of Archaeology. There are over 80 local societies across the U.S. and Canada which sponsor lectures, symposia, field trips to local sites and museums, archeological film festivals and foreign study tours. The Fieldwork Opportunities Bulletin published annually each spring lists U.S. and foreign excavations seeking volunteer workers, paid staff members and students for formal training programs.

(continued)

COUNCIL ON ANTHROPOLOGY AND EDUCATION  
1703 New Hampshire Ave., N.W.  
Washington, D.C. 20009  
(202)232-8800

CAE, organized in 1968 within the American Anthropological Association, is a professional association of anthropologists and educational researchers concerned with the application of anthropology to research and development in education. Its quarterly journal publishes articles about various education topics, mostly on research but also including the teaching of anthropology at the pre-college level.

MUSEUM EDUCATION ROUNDTABLE  
c/o Ken Yellis  
National Portrait Gallery  
F & 8th Sts., N.W.  
Washington, D.C. 20560  
(202)357-2920

MER is a non-profit organization for those interested in museum education and teaching at all levels. Its purpose is to keep educators in touch with each other, to disseminate information about the field, and to promote interest in local museums. The quarterly publication, Roundtable Reports, includes announcements of training programs, reports of conference meetings descriptions of innovative programs, a calendar of events, and articles concerned with museum education. Members are invited to participate in meetings, outings, workshops, and other events relevant to museum education.

NATIONAL ASSOCIATION OF BIOLOGY TEACHERS  
11250 Roger Bacon Dr.  
Reston, Virginia 22090  
(703)471-1134

NABT is the "only education association exclusively devoted to the needs and concerns of the professional biology teacher." Membership benefits include The American Biology Teacher, a journal published nine times a year; a regularly printed newsletter on NABT activities; special publications available free or at special cost to members; and travel and study tours.

NATIONAL COUNCIL FOR SOCIAL STUDIES  
3615 Wisconsin Ave., N.W.  
Washington, D.C. 20016  
(202)966-7840

NCSS was founded in 1921 in an effort to unify efforts of numerous local, state, and regional associations and to create greater cooperation among social scientists of various disciplines. NCSS publications include the monthly Social Education which provides articles, practical classroom ideas, sources of materials and innovative supplies, guidance for professional development and other services. Annual and regional meetings offer members opportunities for professional interaction and development.

NATIONAL SCIENCE TEACHERS ASSOCIATION  
1742 Connecticut Ave., N.W.  
Washington, D.C. 20009  
(202)328-5800

NSTA, an affiliate of the American Association for the Advancement of Science, is a non-profit educational organization. NSTA publishes three magazines for three different levels of teaching: Science and Children, The Science Teacher, The Journal of College Science Teaching. The combined publication News-Bulletin/Middle-Junior High Science Bulletin provides up-to-date association happenings, conferences, new publications, teaching tips and aids, and special articles. Additional benefits include local chapter activities and an employment registry.

WASHINGTON ASSOCIATION OF PROFESSIONAL ANTHROPOLOGISTS  
Box 23262  
L'Enfant Plaza Station  
Washington, D.C. 20024

WAPA is "a group of persons who, by reason of training and interest, seek to develop anthropological knowledge and apply it to the needs

(continued on page 14)



"Let me make songs for the people. . . songs to stir like a battle cry/ Wherever they are sung." Frances Ellen Watkins Harper (1825-1911), who was self-supporting from the age of 13, became the most popular Black poet of her time and one of the most eloquent women orators for the anti-slavery cause.

When Ida B. Wells Barnett (1862-1931), the eldest child of former slaves lost several members of her family to a yellow fever epidemic at 14, she supported herself and four siblings. At the turn of the century, Barnett became a powerful force -- as a journalist, lecturer, and organizer in the U.S. and abroad -- in the crusade against lynching.

Maggie Lena Walker (1867-1934), whose mother had been a kitchen slave, headed a Black fraternal organization which, under her leadership, spread to 14 states. It cared for the sick and dead of its over 50,000 members, sponsored programs for children, published a newspaper, and when, in 1903, Walker found a bank on behalf of the society, she became the first woman bank president in America. (This institution is still viable today.)

## **"BLACK WOMEN: ACHIEVEMENTS AGAINST THE ODDS"**

Over a hundred more women are celebrated in Black Women: Achievements Against the Odds, a new exhibit being sold (\$200) by the Smithsonian Institution Traveling Exhibition Services (SITES). SITES organizes and circulates exhibitions on art, history, and science to institutions in the United States and abroad. This Black Women exhibit, consisting of 20 framed paper panels (each measuring 24"x36"), honors women who have contributed to the over 300 year-old Black-American freedom movement. They worked as lawyers, educators, civil rights activists, religious leaders, artists, politicians, labor organizers, musicians, writers, entertainers, athletes, scientists, mathematicians, medical doctors, journalists, and military and business leaders.

Each panel focuses on the achievements of Black women within a specific field (law, medicine, etc.). Each panel includes a large drawing of a featured woman which incorporates a scene from her life, small photographs of five to seven other women in the same field, an historical overview, information about each woman, and a quotation by the featured woman.

(continued)



*Ida B. Wells Barnett*

Each copy of the exhibit is accompanied by a program handbook, providing materials that can easily be reproduced for classroom use -- film and recording lists, suggested activities, a bibliography for young readers, and a timeline which consists of an important event from the lives of each of the women in the show, and other key events in Black-American history. The low cost of the permanent exhibit, along with its timely and relevant subject matter, makes it a very attractive offering for schools and universities alike.

Although "Black Women" highlights individual achievements, it is essentially the story of a people's struggle for equality and cultural preservation. Used as a whole or in parts, the exhibit can serve as a starting point for developing anthropology related study units and research projects on a large variety of topics. For example, teachers can use the exhibit to build units on African retentions in America, Black cultural values and aesthetics, the forms and functions of institutions in Black and White America, the dynamics of racism, the roles of women, the interrelation of various aspects of culture, and the processes of cultural change.

More specifically, history and English teachers might collaborate using the resources in the exhibit. They could use the award-winning Civil War novel Jubilee, authored by Margaret Walker (b. 1915), as a text for a unit which examines the war from a Black perspective. Teachers might also consider using literature on women who were abolitionists (Sojourner Truth), who served in the war (Harriet Tubman), and who were leaders during the Reconstruction and Post-reconstruction periods (Frances Ellen Watkins Harper). Two women in the exhibit were professional anthropologists and also creative artists whose lives and works provide extraordinarily rich material. Zora Neale Hurston (1901-1960) was a folklorist as well as a writer of fiction who emerged during the Harlem Renaissance of the 1920's. Her book, Mules and Men, is the product of her fieldwork during this

period among Black people in the rural South. Katherine Dunham (b. 1912) carried out anthropological research in the West Indies which served as the basis for a new dance form which she developed and popularized in the U.S. through her performances on Broadway, in films, and through her school of dance and traveling company. Dunham, who has written on dance and ritual primarily in Haiti, has also published fictional works.

Music and history teachers might work together to design a unit on social history using Black music as its basis. Beginning with West African musical forms and retentions in early work songs and spirituals, such a unit might explore the cultural and social factors influencing and reflected in the blues (Ma Rainey, Bessie Smith), gospel (Mahalia Jackson, Sister Rosetta Tharpe), jazz (Billie Holliday, Mary Lou Williams) and other musical forms (rhythm and blues, soul, etc.).

Black Women: Achievements Against the Odds honors women who personify a movement in America which is deep in spirit, and has the power to inspire teachers and students alike. It can best be used as a signpost, pointing the way to a rich and vital legacy.

#### Additional Recommended Resource:

Black Literature for High School Students. Stanford & Amin 1978. National Council of Teachers of English (1111 Kenyon Rd., Urbana, Illinois 61801).

This valuable book includes bibliographies, biographies, and teaching units.

Catherine A. Burt  
Curator/Writer for the  
SITES exhibit on Black Women:  
Achievements Against the Odds

(Turn to page 13 for SITES order form)



## THE TEXTBOOK PROBLEM

You have designed a course in anthropology, the school administration has approved it, and now you are ready to select a textbook. But which one? Unfortunately, high school anthropology textbooks are rare (almost an extinct species), and those that exist are inadequate. There are excellent curriculum kits available, such as Patterns in Human History, and numerous stimulating teaching activities, many of which are located in the Anthropology Resource Center for Teachers in the Museum of Natural History's Naturalist Center. But an urgent need exists for an introductory text on physical and cultural anthropology for high school students that is written by an anthropologist who enjoys writing for this audience.

The analysis of available texts below is limited to those that cover both physical and cultural anthropology, assuming that high school teachers have a one semester course or can order only one major textbook for the year. If any teacher has discovered a workable, stimulating text, let us know and we will share it with Anthro.Notes readers. The next issue of Anthro.Notes will review collections of readings in anthropology.

Salzmann, Zdenek. Anthropology.  
Harcourt, Brace and World, 1969.

This short text was, and is, the only high school book written by an anthropologist, so it is sad to find that it is no longer in print. In 280 pages, the book covers the basic topics of physical and cultural anthropology in a balanced manner. Non-human primate behavior is the only topic not explored, but the general primate pattern is. The volume includes questions at the end of each chapter, suggestions for further reading, and a glossary. The writing style is clear and straightforward, but not especially engaging. The pictures are adequate. A student

comes away with an accurate understanding of the general topics in anthropology, but any excitement about the discipline must come from the teacher, other readings, and classroom activities. The serious weakness, of course, is the out-of-date material on genetics, human origins (nothing on Richard and Mary Leakey's finds and Donald Johanson's discoveries in the 1970's), sociolinguistics, and cultural ecology. A 1984 edition would be heartily welcomed.

Cover, Lois Brauer. Anthropology for Our Times. New York: Oxford Book Co., 1971.  
(not in print)

Specifically written for high school and junior college students by a former teacher and social studies education doctoral candidate, this paperback book adequately covers the major topics in cultural anthropology and human evolution but ignores much of the rest of physical anthropology and primatology. The material is divided into clear, easily digestible sections and it is amply supplemented with black and white pictures. Questions and recommended readings end each chapter. Yet the numerous ethnocentric statements; the use of the ethnographic present, so that Eskimos are living in igloos; the dated view of starving hunters constantly searching for food; Coon's racial categories; and the archaic views on the origin of humans, demand much caution in using the text. At times this book read like a travelogue or a cookbook of cultures. Finally, the text focuses too much on explaining why other cultures' practices are not strange, and not enough on analyzing the cultural behaviors in the U.S. through the eyes of

an anthropologist.

Oliver, Chad. The Discovery of Humanity: An Introduction to Anthropology. New York: Harper and Row Pubs., 1981.

Although written by an anthropologist for college freshmen and sophomores, this excellent book captures the spirit and significance of anthropology in a very clear, readable style -- with jargon left out. Oliver wants us to understand the logic behind behavior, and to do so he engages us in an extended conversation. He limits the number of ethnographic examples so that the reader comes to know much about the Kamba, Cheyenne, San (Bushmen), Zulu, Maasai, and the U.S.A. rather than being lost in the usual vast potpourri of cultural examples. Although the book stresses cultural anthropology, three chapters explore the importance of field studies of non-human primates and the biological framework for understanding human beings. The problem of keeping up with changes in human evolution is solved judiciously by discussing essential general trends and significant questions. The down-to-earth, analytical tone continues when the author discusses the concept of culture, fieldwork, kinship, language, age grades, leadership patterns, the supernatural, culture change, and the development of anthropology, topics he makes relevant to issues affecting students' lives. "If we fail it will be because we failed to understand ourselves. That is the basic reason why anthropology is so critically important. Anthropology has no monopoly on the scientific investigation of the human animal -- and anthropology itself will be transformed in the years to come -- but the problems with which anthropology is concerned are the problems that have to be solved." Summaries, annotated suggested readings, and a glossary are given. The mediocre black and white pictures are the only drawback. Consider evaluating this text for an eleventh and twelfth



grade anthropology course.

Haviland, William A. Anthropology, 3rd ed. Holt, Rinehart, and Winston, 1982.

Haviland's text has been used by some Washington, D.C. area high school teachers, but the reading level and material are definitely geared to the college undergraduate. The encyclopedic approach in this edition covers the aims of anthropology, modern primates, biology and evolution, human evolution, human diversity, archeology from Olduvai to Tikal, language, psychological anthropology, subsistence, kinship, age groupings, economics, political organization, religion, and culture change. The text looks crowded and somewhat cluttered. Haviland emphasizes vocabulary, uses a pedantic approach, and includes too much technical information, so that high school students may easily become lost and bored. The book does not assist the student enough to assess the significant questions and issues in anthropology.

(continued)



Barnouw, Victor. Anthropology: A General Introduction. The Dorsey Press 1979.

This college textbook may be too difficult for most high school students but the chapters cover the same basic topics as Haviland's text in a more organized and cogent style. The examples are well chosen from various parts of the world. Chapter summaries, glossary, bibliography, and suggested readings are included. The graphics are adequate.

Aceves, Joseph B. and H. Gill King. Introduction to Anthropology. Morristown, NJ: General Learning Press (Scott Foresman), 1979.

Effective capsule ethnographies distinguish this college textbook. The six part organization comprises an introduction, organic evolution, evolution of culture, social adaptation social groups and identity, and ex-

pressive aspects of culture. Field projects on family and kinship, life history, and economic and political organization both entice and inform the reader. Review questions, summary, and annotated suggested readings conclude each chapter.

Obviously, no outstanding text has been written for 9-12th graders. Interestingly, a group of Dutch authors has produced Inleiding tot de Culturele Antropologie, a current, apparently sound and widely used introduction to cultural anthropology for high school students, one that visually engages the reader as well. It would be exciting to have such a text in English for both physical and cultural anthropology.

JoAnne Lanouette

(continued from page 10)

## ORDER FORM

### BLACK WOMEN: ACHIEVEMENTS AGAINST THE ODDS

**20 exhibition panels, printed on paper, 24" x 36" each**  
**Price: \$200**

All orders must be prepaid. Make checks payable to "Smithsonian Institution" and mail to SITES, P.O. Box 1949, Washington, DC 20013. Allow 4 weeks for delivery. Each BLACK WOMEN exhibition package is rolled and packed in a special box that measures 5" x 5" x 25". Shipments will be made via UPS.

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(continued from p.3)

and Northeast Asia, the hypothesized homeland of the Paleo-Indian precursors. With funding provided through the National Geographic Society and Wenner-Gren Foundation, Chinese and American archeologists worked together during the summer of 1981 at the Lamb Spring site in Colorado excavating a large pile of mammoth bones, many of which had been broken before burial over 11,000 years ago. Lying in the same deposit was a 33 pound boulder that could have been used by pre-Clovis people to break the long bones. Once again Stanford feels he may be on the trail of pre-Clovis hunters, for why would 90% of the large long bones be broken while the majority of fragile bones (ribs, etc.) remain intact.

Haynes' research results on wallowing African elephants cannot neatly explain the modified bones at Lamb Spring. So, in the summer of 1983 Haynes will excavate modern "elephant graveyards" in Africa: these are the waterhole sites where elephant skeletons have accumulated for many decades. Perhaps he will find there some explanation for the broken long bones and the intact rib bones.

Stanford, meanwhile, is off to another well-stratified site, Blackwater Draw, New Mexico. This site was excavated originally between 1932 and 1937. "Then no one thought there was even a Clovis people, and so no one dug below the Clovis level. Local legend has it that pre-Clovis material has been found there and this summer we hope to find it."

After Blackwater Draw, Stanford will return to China where he spent the fall of 1982. In China, he did not find any evidence of Clovis technology or even tools that look like Clovis' antecedents. But he was able to examine all the Pleistocene collections in the museums, and travelled

to most of the Paleolithic archeological sites. What he discovered was broken bones, flaked bone, and crude stone artifacts, all very similar to what is found at the sites in North America such as Lamb Spring. Evidence for a highly evolved lithic technology does not appear in China until perhaps as late as  $\pm 14,000$  years ago when a microlithic (small tool) technology developed which bears close resemblance to that of the early Eskimo peoples, who are later arrivals on the North American continent.

So, if the earliest American cultures did not originate in Eastern China, where is their source? A new idea tantalizes Stanford. Perhaps the roots of Paleo-Indian culture developed in North Central China. No archeologist since before World War II has examined the sites west of Manchuria, the first stop on Stanford's planned trip to China in 1984.

For now, he will continue his search in America, tracking down the bones and the stones which might give him that unmistakable clear association, of human tools with extinct animal remains, that he is sure exists somewhere, if only he knew exactly where to look.

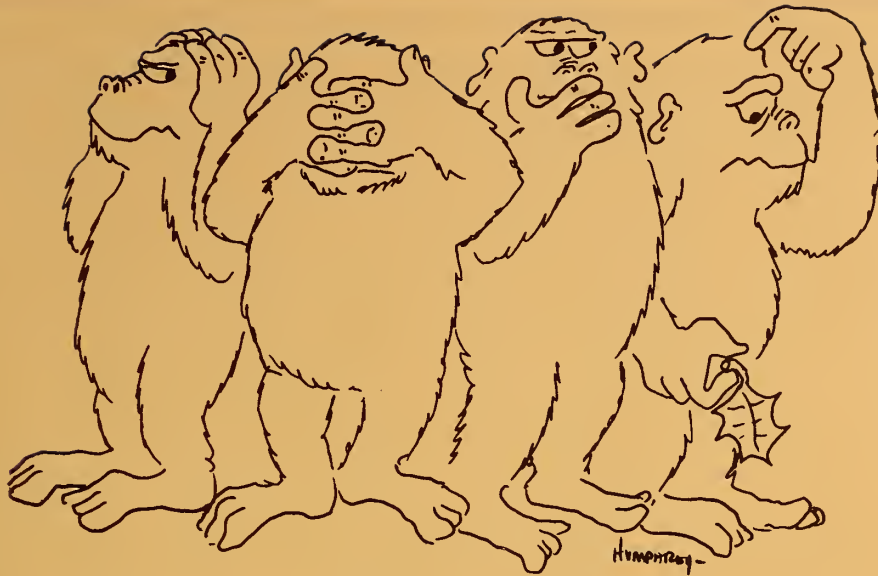
Ruth Osterweis Selig

\* \* \* \* \*

(continued from page 8)

of society." WAPA offers the opportunity to expand one's network contacts and learn of new employment opportunities as the association actively seeks to increase job opportunities for professionals in full- and part-time employment. WAPA holds monthly meetings, publishes a newsletter and membership directory, and holds a potluck social event twice-a-year.





## Do You Know?

- Speculators about the future often depict humans with enlarged brains atop underdeveloped bodies. The chances for humans to evolve into beings similar to the highly cerebral E.T. are slim, according to Niles Eldredge and Ian Tattersall writing in the March issue of Science 83, since population isolation necessary for a new species to occur is very unlikely in our highly mobile world. (Eldredge and Tattersall are coauthors of the recent book The Myths of Human Evolution.)

- Rarámuri Indians of Mexico are an example of now a non-Western people adapt and interpret the missionaries' religion to accommodate their own world view. See "God's Saviors in the Sierra Madre" by William L. Merrill (Smithsonian) in Natural History (March 1983) 58-67.

- Stalking Employment in the Nation's Capital is a new WAPA (see p.8) 73 page publication providing "realistic appraisals of what sort of positions can be expected, details on salary expectations, probable places of entry for B.A., M.A., and Ph.D. anthros, and places to look for job listing." Chapters include United States Government, Internship

Opportunities, Congress, National Associations, Private Consulting Firms, Archeology, Education Anthropology, Museums, and International Development. To purchase the Guide send a check (\$5.00 for WAPA members; \$6.00 non-members) to WAPA, Box 23262, L'Enfant Plaza Station, Washington D.C. 20024.

- In the February issue of Natural History magazine, anthropologist Liza Crinfield Dalby shares her research into the private and public world of the geisha in "The Art of the Geisha" adapted from her book Geisha. This ancient profession, though still considered exotic, nevertheless experiences difficulties recruiting the modern Japanese woman.
- If you were not able to attend the Smithsonian's exhibit "Inua Spirit World of the Bering Sea Eskimos", the February issue of National Geographic contains a beautifully illustrated article "Where Magic Ruled" by William W. Fitzhugh and Susan A. Kaplan featuring some of the exhibit's 19th century Eskimo artifacts collected by naturalist Edward W. Nelson.

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## SUMMER FIELDWORK OPPORTUNITIES

Alexandria Archaeological Research Center offers volunteer opportunities in August and September for a city survey project taking samples from a large number of 19th century household sites from different socio-economic levels. Artifact analysis and laboratory projects will also be conducted. Those interested can call Barbara Magid, volunteer coordinator, at 838-4399.

American University, in conjunction with the Maryland Historic Trust, is conducting a four-week field session (June 13 - July 15) at a late Woodland village site on the Patuxent River in Calvert County. Contact Dr. Charles W. McNett, Dept. of Anthropology, American University, Washington, D.C. 20016, 686-2182. In

addition, the Division of Continuing Education offers a three-week (June 27 - July 15) outdoor mini-field school for high school students to introduce all phases of archeology by looking at prehistoric and historic sites. Students will spend a few days excavating at the Calvert County site. For further information contact Mike Segal, Division of Continuing Education, American University, Washington, D.C. 20016, 686-2845.

Baltimore City Excavation Project offers an opportunity for the public, including upper secondary school students, to volunteer in the excavation of a 19th century brewery site near the Inner Harbor. Excavation is anticipated to begin around July 1st and to last 60 working days. For further

(continued on p.2)



information contact Jeanne Fetting at (301)396-1743 or Debbie Silverman at (301)837-0862.

Catholic University of America's summer field school at Thunderbird Archaeological Park, a paleo-Indian complex near Front Royal, Virginia, introduces students to all aspects of archeology with emphasis on cultural reconstruction. Archeological Field Techniques I is held from June 27 - July 15 and July 18 - August 5; Archeological Field Techniques II is held from July 18 - August 5. To apply write to: Office of Summer Sessions, McMahon Hall, Room 116, Catholic University, Washington, D.C. 20064.

Center for American Archeology, associated with Northwestern University since 1964, cosponsors research and teaching programs with the university. Archeological programs are focused at three campuses: a 24 building, residential complex at Kampsville, Illinois near St. Louis; a 70-acre facility with new headquarters and residential lodge at Crow Canyon, Arizona; and a historic farmhouse at Elgin, Illinois, renovated for use as offices, classrooms, and laboratory. Year-round archeological programs are conducted at each of the three campuses. Open to students from junior high through college, attracting teachers, interested adults, and museum staff, these programs are designed to provide maximum public participation in the archeological research process. For more information on date and fees of summer programs, contact Director of Admissions, Center for American Archeology, 1911 Ridge Ave., Evanston, IL 60201, (312)492-5300.

University of California Research Expeditions Program offers an opportunity for the experienced and inexperienced to become a member of a small university field research team. Studies in areas of anthropology, archeology, animal behavior, ecology/botany, and paleontology will take researchers to all parts of the globe. For further information, contact the University of California Research Expeditions Program, Desk P, University of California, Berkeley, CA 94720, (415)642-6586.

Earthwatch offers opportunities for the interested public (ages 16-75) to join scientific expeditions throughout the world with museum and university scholars of various disciplines. For information on joining an expedition, write: Earthwatch, 10 Juniper Rd., Box 127, Belmont, MA 02178.

Fairfax County Archaeological Survey needs volunteers year-round to participate in survey, excavation and laboratory work in both historic and prehistoric archeology. High school and college interns may receive credit. For further information call Mike Johnson (prehistoric archeologist) or Ed Chatelain (historic archeologist) at 642-5807.

Fairfax County Public Schools sponsors a six-week historic archeology course for high school students. The course entails two weeks of classroom study and four weeks of excavation. The field school will operate from June 29 - August 10. For information write to Jim Lundsford, Masonville Instructional Center, 3705 Crest Dr., Annandale, VA 22003, 698-7500.

George Mason University's five-week field school (May 23 - June 24) will involve excavating a tannery, a cottage industry in Colchester, an 18th century town in Virginia. For more information contact Ann Palkovich, Anthropology Program, George Mason University, Fairfax, VA 22030, 323-3492.

George Washington University Summer Field Program in Mesoamerican Archeology and History is in its 9th season exploring the cultural history of the Maya from the earliest ice age hunters to contemporary times using an interdisciplinary approach. The program includes visits to archeological and historical sites, museums, and this year a special trip to the English speaking country of Belize where Mayan, British, Spanish, African, and Oriental cultures have created a unique society. The three

(continued on p.15)



## NOTES FROM AN EMERGING CULTURE

[Editor's Note: Paul Epstein, Doctoral Candidate in Anthropology at S.U.N.Y. - Buffalo, writes about the beginning stage of his dissertation research on adolescence, while teaching anthropology to junior high and high school students at Washington's first Montessori high school.]

Fifteen students and I gather in a hallway of the Washington Area Montessori High School. Some students are angry, some curious, others just seem bored. I am nervous and embarrassed. The students demand that I tell them why I have collected their notes and why I have invaded their privacy.

I am a note collector. Notes are written by students and pass directly between friends. Notes are also passed by student messengers who promise not to read the note but who invariably do. When confronted for this breach of promise, the messenger swears his or her innocence. The author of the note then declares, "I don't care." At the Montessori High School, "I don't care" is a frequently heard utterance with multiple meanings that I am seeking to understand.

I am not a note messenger. I am a note collector. During the student's interrogation, I explain my actions. I am their anthropology and history teacher, but I am also a Cultural Anthropologist collecting information for my doctoral dissertation on adolescence. Notes are a primary device of communication used by adolescents within our culture for communication and enactment of their culture. I explain to the students that I must pay close attention to all behaviors I observe between students, their parents, teachers, and counsellors. I view these behaviors, including "note passing", as interactions which give meaning and reality to what adolescence is in our society.

### Rules at a Montessori High School

The students' concerns over their privacy are of particular concern to me because I am a teacher trained in the



pedagogical approach of Maria Montessori, and am presently working with fourteen other adults to create the nation's first Montessori High School here in a suburb of the nation's capital. The school, with a co-educational enrollment of 120 seventh through twelve graders, seeks to incorporate Montessori's mandate for reforming adolescent education: establish programs which encourage students to become economically and psychologically independent of their parents, and instill a sense of belonging to a large community. Together these principles should accomplish a "Valorization of Personality" or a process through which each adolescent knows that he or she is capable of succeeding in life by his or her own efforts.

Each student upon admission to this High School agrees to follow basic ground rules to ensure personal safety, promote trust, and permit honest, truthful communication. The fifteen students confronting me about their notes speak openly and honestly. I apologize to them as they believe I

have invaded their privacy. I explain that I found their notes on counters, floors and desks shared by all students in the classrooms where I teach. I promise I will never reveal my sources, that I will meet privately with each note's author to ask permission to use the note and also will ask for his/her interpretation of the contents of each note. The meeting with them ends when one student declares loudly "I don't care. No one will ever know who wrote this stuff. He'll change all the names anyhow."

But I care. Anthropologists have a knack for taking the mundane "I don't care" -- a common, everyday occurrence -- and transforming it into significant data. "I don't care" may be a clue to the existence of some cultural rules unknown to me. At this school, cultural rules are important because we are creating a Montessori high school where cultural rules are established which can be shared by teachers and students alike. At a Montessori high school, students are supposed to be involved with the school's daily administration, with setting and enforcing the ground rules. Input from students is solicited, even about the hiring of new faculty and the admission of new students.

Ideally in a Montessori high school, there should be a single culture shared by faculty and students. In principle, there would not be a separate adolescent culture. For example, in this shared culture, classrooms would be open: students would freely enter these classrooms to work with friends, collect assignments, and confer with teachers. All involved should together share tacit rules with which to jointly conduct these behaviors.

#### Notes in Two Cultures

Instead, I have often observed two cultures in existence side by side. One I call the "Emerging Montessori Culture". People within the school know this as the larger group of faculty and students struggling to instill Montessori principles. But a second culture,

a group of other students, have a separate set of rules. Members of this second group enter classrooms at will but proceed to interrupt and disturb those at work. During the school year, some of these students have even occasionally formed a third more aggressive group, agreeing to actively war against assimilation into the "Emerging Montessori Culture" by breaking computers, tearing carpeting, damaging restroom facilities, and cutting out of school.

The lines of classification between these two cultural groups are not firmly drawn. Every two or three weeks some students from the "Emerging Montessori Culture" switch sides, roam hallways, and enter and disrupt classrooms.

Notes are the primary communication device with which students construct these two cultural groups and by which they switch from one culture to the other. Notes are written between rule sharing friends. These rules permit "friends" to similarly classify information and thereby share interpretations and understandings for the meaning of behaviors.

Notes supply two critical functions in the students' on-going construction of their culture. First, notes confirm cultural membership between the author and those reading the note. At one point a group of students within the "Emerging Montessori Culture" had classified themselves as family members. Their notes were addressed to "Dear Mom" and signed "your daughter". A note might contain, "You shouldn't like \_\_\_\_, I hate \_\_\_\_". The note indicates who is in the culture, and it suggests that someone should not be included. Frequently, notes are passed with the admonition, "Don't let \_\_\_\_ see this!" One interpretation of this

(continued on p. 14)



## READERS' CHOICE

Would your class be interested in what swim teams, "Star Trek", and the Yanomamo have in common? Are you troubled by restless students, the time needed to hunt down current stimulating articles, and the chore of making 30 copies of assigned readings? If so, the annotated list below may provide some relief by suggesting readers suitable for secondary students -- all available in paperback and all in print. These readers contain articles on cultural and, to some extent, physical anthropology. They do not, however, include readings on "doing anthropology". [For a bibliography on "Student Fieldwork Projects", see Anthro-Notes 3(2), Spring 1981; for a bibliography on "Ethical Dilemmas in the Field" see Anthro-Notes 4(1), Winter 1982.]

Angeloni, Elvio, ed. Annual Editions: Anthropology 83/84. Guilford, CT: The Dushkin Publ. Co., 1982. Instructor's guide upon request.

A widely used, stimulating collection of 40 articles from popular journals such as Science 82 and Natural History, Annual Editions focuses predominately on cultural anthropology. The old stand-bys are repeated, such as "Doing Fieldwork Among the Yanomamo," "Body Ritual Among the Nacirema," and "Steel Axes for Stone Age Australians." However, more recent articles are included which discuss creationism, child care in China, new dates for the beginning of farming, patterns of social interaction in new video arcades, and confessions of a former cultural relativist. The index and topic guide aid in integrating articles into different course organizations. The topical divisions mirror Conformity and Conflict. However, the two readers differ: Annual Editions: Anthropology 83/84 has much shorter introductions and analyses than Conformity and Conflict, several challenge

questions, a few more recent articles, and an 8 1/2 by 11 format.

Arens, W. and Susan P. Montague, eds. The American Dimension: Cultural Myths and Social Realities. 2nd ed. Port Washington, NY: Alfred Pubs. Co., Inc., 1981.

This reader corrects the unfortunate oversight of American culture in most introductory courses in anthropology. The 16 essays fall into two major sections: symbolic analysis of cultural phenomena and social strategies and institutional arrangements. The first section focuses on what the mass media -- professional football, "Star Trek", "Duck Soup", soap operas, and "The Exorcist" -- reveals about our culture. "The mass media constitutes a forum for depicting and to a certain extent, debating current morality." The second section includes essays on volunteer firemen, middle class friendships, and health care behavior. This reader shows how people use information to behave in different social contexts and students will learn something about the differences among various parts of the United States. References are provided at the end of each essay. The essays raise theoretical issues but they should not be too difficult for high school students to consider for the analyses are interesting and revealing about ourselves and our culture.

Cole, Johnnetta B., ed. Anthropology For the Eighties: Introductory Readings. New York: The Free Press (Div. of Macmillan Pub. Co., Inc.), 1982.

No "them" and "us" exists in this reader arranged into traditional and current topics. Instead the articles on fieldwork, language and culture, ritual and belief systems, ethics, racism, sexism, and changing economic systems

intertwine analyses of United States culture with ones more distant. Traditional articles, such as "The Impact of Money on an African Subsistence Economy" by Paul Bohannon, join with more recent articles on a garbage workers strike, "Star Trek", and women in Cuba. An essay introduces each section and subsection clarifying the major issues of that topic for anthropology. Bibliographies come at the end of each topic. High school students will enjoy and learn much about anthropology's perspective and diversity in these stimulating articles, but they may stumble over parts that discuss theoretical implications and history. The readings included are a bit more thorough and scholarly than in the other readers.

Hunter, David E. and Phillip Whitten, eds. Readings in Physical Anthropology and Archaeology. New York: Harper and Row, 1978.

Although designed for college introductory students, the editors assume no background in archeology or physical anthropology. Engaging articles on stones and bones often focus on current debates. Articles range broadly and include "A Chat with Charles Darwin", "Pilgrims Elude a Pilgrim Hunter", "Ancient Aches and Pains", "Hominids in Africa", "Shadow of Olmecs", and "The Fallacy of Biological Determinism". From this reader students will learn about evolution, archeology, the fossil record, primates, civilizations, and contemporary issues.

Kottak, Conrad Phillip, ed. Researching American Culture: A Guide for Student Anthropologists. Ann Arbor, MI: The University of Michigan Press, 1982.

Although the first part of this book details steps in conducting research, the other three parts are essays by students and professional anthropologists on contemporary

United States culture. Topics covered include the media, high schools, death, swim teams, sexual discrimination, and puns.

Lisitzky, Gene. Four Ways of Being Human: An Introduction to Anthropology. New York: Penguin Books, 1976. (original copyright, 1956)

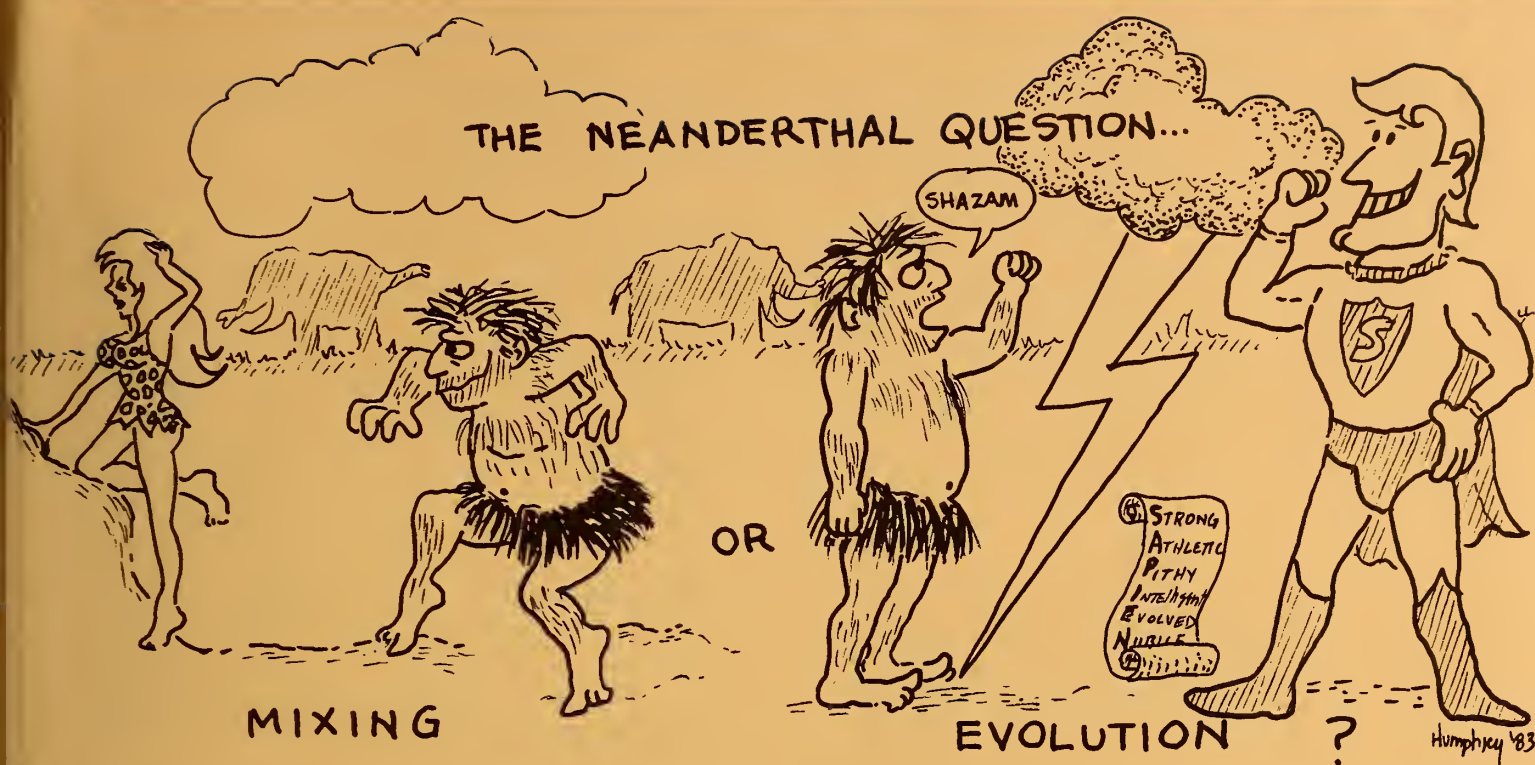
This informed and compassionate book was written for high school students by a journalist committed to the value of anthropology as a "mind stretcher, prejudice dissolver, and taste widener." Concerned with showing students how different cultures have ingeniously coped with different environments, Lisitzky describes the Semang in the tropical rain forest of Malaya, the Eskimo in the high Arctic regions, the Maori of New Zealand, and the Hopi in northeastern Arizona. The chapters emphasize how each people's culture works for them, how they view their own problems, and how they find joy. The student is not expected to have any background in anthropology and no theoretical language is used to describe each culture's economy, social structure and belief system. The teacher using this book should alert students to the changes which have altered the lifestyles of the Semang, Eskimo, Maori, and Hopi since the descriptions represent the past more than the present.

Service, Elman R. Profiles in Ethnology. 3rd ed. New York: Harper and Row, 1978.

This book's organization reflects its author's theoretical concerns with the evolutionary development of bands, tribes, chiefdoms, primitive states, and modern folk societies. The 22 readings, all by Service, are capsule descriptions of such groups as the Copper

(continued on p. 12)





## A NOVEL APPROACH TO PREHISTORY

In their search to illuminate human origins, anthropologists have been joined by poets and novelists. The past provides them with inspiration and subject matter: Homer's *Iliad* tells of events centuries before the poet's lifetime; Shakespeare dramatizes life among the ancient Romans. In the 20th century, as scientists have applied increasingly sophisticated techniques to the study of ancient bones and stones, novelists, from Jack London in 1906 to Jean Auel whose novels are best-sellers today, have imaginatively explored the beginnings of human consciousness and culture.

Auel's first novel, *The Clan of the Cave Bear*, tells of a five-year-old Cro-Magnon girl, orphaned in an earthquake and wounded by a cave lion, who is adopted by a Neanderthal "Clan". The child Ayla struggles to adapt to her new society under the tutelage of her foster mother, the clan's medicine woman. As a young teenager, Ayla is expelled from the group, and Auel's second novel, *The Valley of Horses*, takes up the story at this point. Ayla draws on the survival skills she learned in her hard years with the Nean-

dertals, and puts to good use her imaginative and inquiring mind. Settled into a cave, Ayla hunts and gathers, stock-piles equipment and medicinal herbs, invents an astounding array of devices from fire-starter to travois, and longs to find some of her own people.

Meanwhile, Jondalar, a young *Homo sapiens sapiens*, travels east with his brother Thonolan. As they journey, they encounter and make friends with several groups of other *Homo sapiens sapiens* from whom they learn new languages and customs. They arrive in the valley of horses where Ayla has been surviving, bereft of human companionship but now accompanied by a horse and a cave lion which she has raised from infancy. Ayla's skills in medicine enable her to save Jondalar's life and at last she begins to learn what a fellow Cro-Magnon is like.

In her two books, Jean Auel deals with the confrontation of *Homo sapiens neandertalensis* with *Homo sapiens sapiens*, as did Björn Kurtén in his *Dance of the Tiger* (1978) and

William Golding in The Inheritors (1955). All raise the question of who is truly civilized -- what, indeed, is civilization? Unlike Kurtén and Golding, Auel does not romanticize the Neandertals as possessors of the greater share of loving kindness, nor does she load all the evils of modern society on the shoulders of its earliest members. She does endow her Cro-Magnons with the advantage of greater adaptability and a much greater willingness to experiment, thus suggesting that rigidity helped account for the disappearance of the Neandertals.

### Visions of Neandertals

Auel's Neandertals rely on what she calls "racial memory" which allows them to recall inherited knowledge rather than learn it anew in each generation. The term "racial memory" was used previously by Jack London in Before Adam to describe why a "falling-through-space dream" would plague a modern human: the dream was a recollection of an ancient tree-dwelling ancestor for whom such a fall was an ever-present danger. The "racial memory" concept seems to appeal to novelists as it often accompanies the image of Neandertals as people with extremely limited spoken language. Such Neandertals appear in Auel's novels and in William Golding's The Inheritors in which the Neandertals sometimes communicate by transmitting mental images to one another. Auel's Neandertals, while storing and recalling knowledge through their racial memories, use a highly developed sign language to supplement their limited range of spoken words. In Dance of the Tiger, Kurtén's Neandertals have an elaborate formal speech but are limited in the range of sounds they can make.

There has been considerable debate about the possible fluency of Neandertal speech, and work in that field remains controversial. As for general motor coordination, however, studies indicate that the Neandertals, while more heavily muscled than modern humans, had the same range of movement. Unfortunately, Jean Auel perpetuates the concept of an awkward moving creature in her insistence

that restricted shoulder movement prevented Neandertals from skillfully throwing spears or using slingshots.

Clearly there is a limitation to studying prehistory through fiction. Novelists are entitled to imaginative license and cannot be held to strict accountability for fact, even when they are, as in the case of Kurtén, scientists first and novelists second. A good writer, after all, can bring to life the richness of the Pleistocene landscape as can no computer-tabulated catalog of bone fragments and fossil pollen. Moreover, much of the value of these novels lies in their authors' freedom to speculate, to people the past with characters conceived in the present.

### Past Times, Present Views

These books should be read not just for their re-creation of a possible distant past, but for what they reveal about the authors' own era. London's Before Adam, which appeared a half-dozen years after Freud's The Interpretation of Dreams, reflects Freud's impact on the first decade of the 20th century. Golding's The Inheritors, published the year after he dealt with the clash of savagery and civilization among modern boys in Lord of the Flies, takes up the same problem, in a prehistoric setting. Kurtén's Dance of the Tiger demonstrates the power of totalitarian military regimes as well as the divisiveness of racial prejudice. Auel's characters embody the values of the women's movement. Her protagonist Ayla is resourceful, self-reliant, and physically powerful: a heroine for today.

All these works ask us what is human? What is civilization? In challenging teachers and students to consider such questions, writers of fiction make a valuable contribution to the study of human origins.

Alice Padwe, Docent,  
Museum of Natural History



## FOR THE LOVE OF THINGS

Priscilla Rachun Linn holds a B.A. from Cornell University and a B.Litt and D. Phil in anthropology from Oxford University in England. In 1970-1971 she undertook fieldwork in Chamula, Chiapas, Mexico, and in the winter of 1972 she returned to Chamula with a grant from the Harvard Chiapas Project through Professor Evon Z. Vogt, and again in the summer of 1972 as field leader for that project. Since 1979 she has pursued a career in museum anthropology, and is currently employed at Hillwood Museum in Washington, D.C. Married twelve years with two children aged 5 and 9, she finds her children like to visit museums in Washington almost as much as she likes to work in them.

[Anthro·Notes editors asked Dr. Priscilla R. Linn to write a profile of her work as a museum anthropologist in order to better acquaint students and teachers with the varied career options open to an anthropologist. She responded to three questions.]

Q. Most anthropologists teach and do research within a university setting. How did you become interested in museums?

In 1963 the promise of unlimited potential drew undergraduates to anthropology at Cornell. I distinctly remember the last class of Anthropology 101: "By 1973," the professor predicted enthusiastically, "all Ph.D's graduating in the United States could be absorbed in the state of California alone." In reality, however, by 1973 the anthropological market could absorb no more. For frustrated, job-searching graduates of the 70's, the lush days of the 60's had already reached the proportions of a mythical Golden Age.

Fortunately for me, academia had never been an ultimate career goal as an anthropologist. I knew as early as the 60's that if I hoped to open minds and erase prejudice, to teach the wisdom of cultural relativity and objectivity, I had to do it apart from the formal classroom. I chose an alternative career as

the world "alternative" and I came into our maturity.

Perhaps my love of culturally produced things generated my interest in museums. Material Culture, today called Material Anthropology, has long been the step-child of the intellectual pace-setters. Yet to me -- whether complex or simple, beautiful or ugly, mended or discarded -- things reveal a mini-theory about the people who produce or use them. Things tell us how people allocate resources, including time; how they exchange with each other; how they set up social groups; and how priorities symbolize values. A thing is a deed in itself, a completed fact. For better or worse it is what someone actually did, not what they said they did, or thought they might do. How to interpret the stories that things harbor -- that is the challenge for museum anthropologists.

Q. How did you first actually enter the museum job market?

In 1977, when I received my Ph.D., I took a part-time job teaching at George Mason, while pursuing my interest in the museum world through a course in museum anthro-

pology at George Washington University. I also read Bowles' What Color is Your Parachute? and came away with the concept of the Information Interview.

I began to make appointments with museum professionals-- at the Smithsonian and Corcoran, the Association of Science and Technology-- to ask for information about their work and their career experience. I always came away with another lead for an interview, left my resume' behind, and afterwards wrote a thank you note. Eventually after 6 months of a staunch job quest, I took a contract position as a researcher for the Smithsonian's "Celebration Exhibit" at the Renwick Gallery. Through Victor Turner, guest head curator for the show and my former professor at Cornell, I was hired to research Latin American objects and co-ordinate research efforts, but the job took me far beyond research into various aspects of exhibit production. Although the managers of the exhibit worked at the Renwick, my base of operations was in the Museum of Natural History where I soon found many members of the department extending friendship and help when the need arose.

Q. After "Celebrations", how did you manage to stay at the Smithsonian?

As my phase of "Celebration" work came to a close, I applied for and was awarded a Post-Doctoral Fellowship at the Smithsonian. Research on artifacts collected by Dr. William H. Crocker, Curator of South American Ethnology, from Gê speaking Canela Indians of Central Brazil absorbed me from 1981-1982. Material on Canela masks based on this research awaits revision for publication, and a continued investigation of Canela objects remains one of my most lively current interests.

However, as early as December 1980, the Department of Anthropology had approached me about curating a loan of select North American Indian artifacts from the Marjorie Merriweather Post collection in the Smithsonian to Hillwood Museums, Mrs. Post's former estate. Once again I would be in the delicate position

of working for an employer apart from my place of employment. For an anthropologist interested in exhibits and public education here was an unparalleled job opportunity. Working with Hillwood staff and eventually O'Neil and Manion Architects and Root and Chester Design, I would curate, co-ordinate, help plan and design an exhibit for a beautiful rustic lodge constructed to evoke the woodland of Mrs. Post's Adirondack Camp Topridge. The reality of the job, begun in 1982, has far exceeded even my most optimistic anticipation. As the approximately 200 pieces of North American Indian art find a place in the grand exhibit design, excitement for the project mounts. Educational information on cultural context will complement the purely visual and aesthetic appeal of the building and works of art. Hillwood, located at 4155 Linnean Ave., N.W., anticipates a July opening for the Indian building, which will be available to the public by reservation only due to zoning restrictions. Those interested should call Hillwood at 686-5807.

At present I can devote time only to Hillwood but know that once this project is complete, I will again take up a free-lance quest, with considerably more management and organizational skills under my belt than before. Meanwhile I have manuscripts to publish and research to update.

Some careers appear to materialize as blocks, each one laid consecutively upon the next to form an edifice. Mine appears more as a sturdy scaffold, composed both of frame and spaces as I work around-- but not always within-- the structure of museum organization.

Priscilla Rachun Linn



## OF PERIODIC INTEREST

Below is a description of those journals and magazines teachers and students may find particularly useful for background information and specialized research. We have not included scholarly publications of the American Anthropological Association or its affiliates, nor any of the other periodicals issued by organizations described in the winter 1983 issue of Anthro. Notes. Each periodical below is highly recommended for pre-college and college libraries. (Note: subscription rates are subject to change.)

American Indian Culture and Research Journal includes articles, review essays, and book reviews on historical and contemporary research (in areas of history, education, mythology, and economic and culture change) on American Indians. Published quarterly, \$12/yr. To subscribe write to: American Indian Studies Center, 3220 Campbell Hall, University of California, 405 Hilgard Ave., Los Angeles, CA 90024. (Make checks payable to The Regents of the University of California.)

Annual Review of Anthropology contains topical articles providing in-depth reviews of recent research. A wide range of areas in physical and cultural anthropology is covered including applied anthropology. An excellent way to keep current with the field. Yearly volume, \$27. To subscribe write to: Annual Reviews, Inc., 4139 El Camino Way, Palo Alto, CA 94306.

Archaeology is a heavily illustrated journal written for the general public covering ancient cultures of the Old and New Worlds. It contains feature articles, current exhibitions, book and film reviews, and travel information. The March/April issue features an archeology travel guide to sites available to the public in the Old World -- Africa, Europe, Pacific, Asia, South and Central America, and Middle and Near East. The May/June issue covers archeological sites in the New World -- Canada, Mexico and the United States. Published bimonthly,

\$18/yr. To subscribe write to: Archaeological Institute of America, 53 Park Place, New York, NY 10007.

Current Anthropology, sponsored by The Wenner-Gren Foundation for Anthropological Research, includes articles on recent research from all the sub-disciplines of anthropology. Each main article is followed by a section with specialists' critiques and with the author responding to each comment. A scholarly but readable, current and informative journal. Published 6 times a year, \$63/yr; \$72/2 yrs. To subscribe write to: University of Chicago Press, P.O. Box 37005, Chicago, IL 60637.

Early Man, a magazine of modern archeology, is published by the Center for American Archeology, a program of archeology teaching and research associated with Northwestern University. The journal concentrates on New World archeology with feature articles, archeology opportunities, and travel information. Published quarterly, \$15/yr. To subscribe write to: Center for American Archeology, 1911 Ridge Ave., Evanston, IL 60201.

Mosaic is an interdisciplinary magazine of basic and applied research published by the National Science Foundation. It is written for non-specialists so the Foundation can report on the scientific research it supports in both the biological and social sciences. Published 6 times a year, \$12/yr. To subscribe make checks payable to the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402.

National Geographic, the official journal of the National Geographic Society, often includes articles on anthropology and archeology with beautiful illustrations. Yearly indexes can be of help to teachers and students in researching a wide variety of topics. Published monthly, \$15/yr. To subscribe write to: National Geographic Society, Washington, D.C. 20036.

Natural History magazine contains well-illustrated articles covering the natural sciences including animal behavior, ecology, mineral science, and anthropology. A regular column, "This Side of Life", by Stephen Jay Gould often touches on evolutionary theory and the history of science. Published monthly, \$15/yr. To subscribe write to: American Museum of Natural History, Central Park West at 79th St., New York, NY 10024.

Science magazine is published weekly by the American Association for the Advancement of Science. The articles are highly technical with emphasis on the biological sciences but include the latest research in anthropology. 51 issues, \$53; \$35 to students and retired citizens. To subscribe write to: American Association for the Advancement of Science, 1515 Massachusetts Ave., N.W., Washington, D.C. 20005.

Science 83 is another publication of the American Association for the Advancement of Science. The purpose of this relatively recent magazine is to bridge the gap between science and the public. The well-illustrated articles are technically accurate and lucidly written for the general public with archeology and anthropology often featured. 10 issues, \$15/yr. To subscribe write to: Science 83, 1101 Vermont Ave., N.W., Washington, D.C. 20015.

Scientific American, written for the educated public, has somewhat technical and lengthy articles. This journal is recommended particularly for upper high school students and teachers. Published monthly, \$31/yr. To subscribe write to: Scientific American, P.O. Box 5918, New York, NY 10164.

PLEASE NOTE:

Contrary to information contained in the Winter AnthroNotes issue, Anthropology, rev. ed. 1973, by Zdenek Salzmann (New York: Harcourt, Brace, Jovanovich, 1969) is still in print and available despite its omission in Books in Print.

(continued from p.6 )

Eskimo, Navaho, Inca, Yahgan, Reindeer Tungus, Nuer, Zulu, Ashanti, and Arunta. A cultural map and photographs accompany each study. The readings support Service's views on increasing structural complexity which some anthropologists do not accept. Furthermore, all descriptions are written in the "ethnographic present" with little attention given to culture change. Although the book is clearly written and well-organized a high school student may become bored by the style.

Spradley, James P. and David W. McCurdy, eds. Conformity and Conflict: Readings in Cultural Anthropology. 4th ed. Boston: Little, Brown, and Co., 1980. Instructor's Manual free.

A popular reader, Conformity and Conflict groups interesting articles according to culture, language and communication, kinship and family, sex roles, cultural ecology, economic systems, law and politics, religion, and culture change. Each section's thoughtful introduction is short, and the analyses are easy to understand. The articles describe United States and European cultures as well as the better known non-Western culture anthropologists have studied. Unfortunately, with Spradley's death this past year, future editions may not be forthcoming.

Weaver, Thomas, et al, eds. To See Ourselves: Anthropology and Modern Social Issues. Glenview, IL: Scott Foresman, and Co., 1973.

This provocative and thoughtful reader discusses the contributions of anthropology to contemporary social issues. The various articles address the myth of the melting pot, anthropology and the Third World, race and racism, poverty and culture schooling, violence, our troubled environment and changing the system.

JoAnne Lanouette



## PERFORMANCES FOR STUDENTS

A wonderful way to encourage enthusiasm and bring culture alive for an anthropology, social studies, world cultures, or geography class is to bring a culture to your students through music, dance, storytelling or theater. The groups listed below are local to the Washington, D.C. metropolitan area. However, to locate performance groups in your own area you can contact your local arts councils (the Fairfax County Council of the Arts, 941-6066, and the Superintendent of Montgomery County for School Performances, 365-7165, are two in the D.C. metropolitan area) and International Institutes, both of which act as clearinghouses for arts and educational activities. Folklore societies and churches with a predominately ethnic membership serve as further excellent resources. Most performance groups come to schools for a nominal fee.

African Heritage Dancers and Drummers specializes in traditional West African dance and music with emphasis on dance. Colorful costumes and carefully researched dances provide an exciting introduction to West African culture by a group highly esteemed in the Washington metropolitan area. Performances, including a lecture demonstration, can be directed at any age group. The African Heritage Dancers and Drummers also offers classes for young people and adults. For further information write to Melvin Deal, African Heritage Dancers and Drummers, c/o Landsburg Cultural Center, 420 7th St., N.W., Washington, D.C. or call (202)628-9528.

American Indian Society of Washington Dancers is a self-supporting organization of full-blooded American Indians raised on reservations whose songs, dances, and crafts reflect their life experiences as American Indians in the 20th century. The Society's dancers have performed at the Kennedy Center and Wolf Trap. Craft demonstrations can also be arranged. Since the members of this dance group all work, performances are available to schools only during Federal holidays. For further information

write to the American Indian Society of Washington Dancers, 519 5th St., S.E., Washington, D.C. 20003. (Include a self-addressed stamped envelope.)

Raquel Pena Spanish Dance Co. is highly acclaimed for its authentic and fine quality performances. Programs are exciting, well-organized and informative, and can be geared to a variety of educational levels. Performances offer an introduction to Spanish culture through dance and music, and feature authentic costumes, castanets, heel-work, and flamenco and folk dances. Teachers are provided with preparatory and follow-up materials, and students enjoy strong audience participation. For further information, contact Raquel Pena, 4801 North 9th St., Arlington, VA 22203, (703)527-3454.

Washington Toho Koto Society provides an excellent program of Japanese music including a brief history and a question and answer period. Kyoko Okamoto demonstrates three different types of Japanese musical instruments and then performs children's music as well as classical and folk music depending on the interest of the audience. A program including Japanese traditional dances can also be arranged. For further information contact Kyoko Okamoto, 10230 Green Forest Dr., Silver Spring, MD 20903, (301)434-4487.



(continued from p.4)

note is that the author has expressed anger. However, an important interpretive variant is that this note could be teasing. My 15 interrogators warned me, "Unless you're in the situation, you can get it wrong." You're "in" -- you've confirmed your membership into this culture -- when you know how to apply the correct interpretative rules. Notes serve a second purpose -- the inclusion of new members; for example, "I like \_\_\_, do you?" During the family affair, notes ran like this: "I like \_\_\_. Let's adopt him (or her)".

An important kind of adoption takes place after some three or four weeks: a girl is asked by a boy to go with him. "Going with someone" is a public declaration that you like the person. There is a flurry of note-passing activity prior to his asking and after she says yes. During this cycle, those students involved leave the "Emerging Montessori Culture" and switch sides, joining the other culture of students who enter and disturb classroom work.

"Going with someone" is an involving piece of cultural work. It is more than a boy asking a girl. Most usually, it is the girl who initially wants to go with the boy. She won't however, just ask him out; this is regarded as tacky and cheap. Instead, she tells her girl friends that she "kinda likes him". The note-passing network is now jammed with this news. The messengers involved enter and disturb other classrooms while passing notes. Thus the second culture, like the first, is defined and encouraged through this ritual of note-passing.

The girl's friends begin to "bug him". Karen wants to go with Sam; Karen's girl friends "bug him" by asking, "Do you like Karen? Why not?" After some days of this, everyone knows Karen likes Sam. Eventually, Sam does ask Karen to go with him. Usually, according to my informants, he does this because he is

tired of being bugged. Later, when they break up, the grounds for divorce are that he never really liked her to begin with -- he only asked her because he was bugged. Cultural lines of membership are re-drawn; the ranks of the "Emerging Montessori Culture" again swell, and active disruptive note-passing declines.

The anthropological study of an emerging culture is fascinating work, fully compatible with my activities as a "resident anthropologist" and Montessori teacher for whom observation is always a primary activity. Maria Montessori encouraged teachers to design environments for learning that would incorporate the activities and interests of the students. As I share my observations with teachers and students, and they share theirs, a culture is slowly emerging. We seek the design of human and physical environments that support the process through which adolescents valorize their personality, the process through which a student comes to succeed in life through his or her own autonomous decisions.

Paul Epstein





(continued from p.2)

week session will be held from June 21 - July 15; cost \$1495 plus tuition. For further information contact Professor Robert L. Humphrey, Department of Anthropology, George Washington University, Washington, D.C. 20052, 676-6075.

George Washington University sponsors two eight-day field sessions in historical archeology in Alexandria, Virginia. This season's effort to interpret community history will involve excavation of Alexandria's elite sites circa 1790-1850. The first session begins May 6 - May 24; the second June 21 - June 29. For further information and application form write to Dr. Pamela Cressey, Alexandria Archaeological Research Center, City Hall, Box 178, Alexandria, VA 22313, 838-4399.

University of Maryland, in cooperation with Historic Annapolis, Inc., is in its second season of excavation in historic Annapolis. In the first half of the six-week session (June 6 - July 15), students will learn excavation techniques, note-taking and ceramic identification; in the second half students will learn how to teach basic archeological skills to the volunteers working with them, and how to explain archeology to the public. For further information contact Professor Mark P. Leone, Department of Anthropology, University of Maryland, College Park, MD, 454-4154. Deadline for applications is May 1, with limited enrollment. Volunteers are also encouraged to apply.

School of Arts and Sciences in Berkeley, California, encourages advanced secondary high school students and teachers to discover the "Landscape and People in Britain" from June 22 - July 31. This field study course will be conducted at various universities and in the countryside villages and towns of Britain looking at Britain's geography, history and people. For further information write: School of Arts and Sciences Summer Session, P.O. Box 5545, Berkeley, CA 94705, (415)549-1482.

Smithsonian Institution's Office of Elementary and Secondary Education sponsors the following workshops this summer for elementary and high school teachers: American Cultural History Through Art (June 28 - July 2); Improvisation for Problem Solving: Teaching with Creative Dramatics (July 11 - July 15); Museums: A Fertile Ground for Language Development (July 18 - July 22); Insects in the Classroom (July 11 - July 14); Using Museums to Teach Writing (July 25 - July 27); Flight: Engineered by Nature and by Man (June 27 - June 30). In-service credit is available for teachers in local jurisdictions. A non-refundable \$5.00 fee is required per course. For further information contact Thomas Lowderbaugh at 357-3049. Telecommunications Device for the Deaf number is 357-1696. Interpreters for hearing-impaired participants can be made available free-of-charge by prior arrangement.

Thunderbird Research Corporation's continuing education one-week archeology field sessions is open to the public, beginning May 16 - August 27. At Virginia's first prehistoric National Historic Landmark, human occupation dates from ca. 10,000 B.C. to the Colonial period. \$100 enrollment fee. Applicants may stay beyond the one-week session to work as volunteers. Camping facilities available. For further information write: 1983 Summer Field Program, Route 1, Box 1375, Front Royal, VA 22630, (703) 635-7337.

Field School Listings in anthropology and archeology: 1) American Anthropological Association, 1703 New Hampshire Ave., N.W., Washington, D.C. 20009; \$3.00 and 2) Archaeological Institute of America, 53 Park Place, New York, NY 10007; \$5.00.

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# anthro notes

## National Museum of Natural History Newsletter for Teachers

vol. 5 no. 3

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### ANGEL BRINGS BONES TO LIFE

Earlier this year local newspapers carried a story about a gas tank explosion near Front Royal, Virginia, that left what were thought to be the charred remains of the truck driver. The bones were packaged and sent for identification to Dr. J. Lawrence Angel, physical anthropologist at the Smithsonian Institution. When Angel opened the package, he knew immediately that the bones were not human -- a colleague showed that they belonged, in fact, to a pig.

This request for identification was not unusual for Angel whose success rate helping law enforcement agencies has earned him the nicknames "The Bone Man" and "Sherlock Bones". Every week Angel receives skeletal materials, some fresher than others, of possible missing persons or murder victims. As a physical anthropologist and leading forensic specialist, Angel can identify age, sex, ethnic background and stature by examining certain parts of the skeleton, particularly the skull, pelvis, teeth and long bones. For example, in determining the sex of an individual, the pelvis and skull are the best indicators. In females the pubic portion of the hip bone is larger than in males producing a greater sub-pubic angle. The skull is usually more robust and muscle-marked in males and has more prominent brow ridges. The skeletal materials Angel receives from law enforcement agencies or uncovers in his fieldwork seldom include the whole skeleton of an individual. He usually has only a portion of a skeleton, which may consist of fragmented bones, or bones partially gnawed

away by animals. The bones' condition and specific markings can sometimes reveal the cause of death or physical diseases contracted during the person's lifetime. (An excellent reference and required reading in Angel's physical anthropology classes is Human Osteology: A Laboratory and Field Manual of the Human Skeleton by William M. Bass.)

(continued)



## Teaching with Evelyn

Angel often uses skeletal materials from a forensic case in his lectures on osteology, but he refers to the bone or bones using the victim's name if known. As Peggy Angel, his wife of 46 years, explains: "My husband feels compassion for crime victims and believes in treating their skeletons with dignity." Evelyn is an example.

Evelyn Nasca was a high school student in Rockville, Maryland. In January 1973 she was reported missing after she attended a high school talent show. Two years later a human skull, minus a jaw, was found in the vicinity of Evelyn's disappearance and immediately handed over to Angel. The skull gave him significant information. The third molars were not fully in; therefore, the person was not yet an adult. The brow ridge, though somewhat developed, and the delicate facial contours suggested it was probably a female while the shape of the cranium reflected Evelyn's German-Sicilian background. The decisive bit of evidence was the resemblance of the two front teeth on the photograph of Evelyn and on the skull -- both were slightly out of line. (Today Evelyn's bones, donated to the Smithsonian Institution by her family, are under the curatorial care of Angel.)

The challenge of identifying signs of an individual's occupation and avocation from bones particularly interests Angel. Under stress, bone builds extra layers in areas of the most pressure. A skeletal study of 18th/19th century ironworkers of Catoctin Furnace, Maryland, carried out by Angel and his research assistant, Jennifer Olsen Kelly, reveals

signs of occupational stress appearing as bony crests in the ironworkers' forearms. In examining knobby bumps next to the jaw joint of a Delaware murder victim, Angel's suspicion was correct: the victim played a wind instrument. Horseback riders do not escape detection: stress marks on their lower femurs provide clues.

Angel's forensic work for law enforcement agencies has made him the subject of numerous articles in Science Digest, Smithsonian magazine, The Washington Post and recently People magazine (May 16th issue) where Angel received a two-page coverage, the envy of any Hollywood star. Mrs. Holland, Angel's secretary for many years, commented: "Dr. Angel sometimes dries bone specimens in a wire cage on the ledge of his window. He gets very excited and looks forward to new material coming in and devotes all his time to it until the work is completed." Besides helping to solve crimes, Angel's forensic work also enables him to study skeletons of middle class Americans.

## Smithsonian Curator

Forensic work and identification of missing persons are just two aspects of Angel's professional interests and responsibilities as a Smithsonian physical anthropologist. He also curates the bone collection in the Department of Anthropology. The skeletal materials consist primarily of prehistoric North and South American Indian populations; African, Asian, Australian, Hawaiian, and Chinese populations; and European and U.S. specimens. This latter group includes the Terry Collection which consists of over 1650 unclaimed bodies, black and white, male and female, from the Washington University School of Medicine in St. Louis with known age, sex, ethnic background and cause of death. Angel and Kelly have been studying the Terry Collection to compare the health of males and females, blacks and whites, over the past 100 years. They have researched indicators of dietary and environmental improvement including the

The editors wish to thank the National Museum of Natural History for its support of Anthro·Notes. Our new logo, designed by G. Robert Lewis, incorporates the elephant symbol of the Museum.



skull base height, the pelvis inlet depth (what radiologists call the "Park Avenue" pelvis -- a deeper pelvis indicative of better nutrition), stature, enamel growth arrest lines, dental disease and alveolar bone disease.

### Early Interests

One might begin to wonder how Angel became interested in bones in the first place and what led him to a career in physical anthropology. He was born in England in 1915, the son of an English sculptor and an American classics scholar, whose father had helped to found the American School of Classical Studies in Athens. As a small child Angel, like most children, was frightened of skeletons, even the one housed in his father's studio. But, by the age of eight his fear had turned to fascination during his frequent visits to the Natural History Museum in London. A collector of butterflies and moths, Angel enjoyed the museum's exhibit on the moth's adaptation to London's industrial environment. The exhibits on human anatomy led him to think that the "Piltdown man didn't make much sense" and the displays on evolution raised fascinating questions: How did it take place? Why did the dinosaurs become extinct?

Angel did not recognize his interest in anthropology until he was a student at Harvard University studying classics. Angel explains, "Classics was almost a boring field. Literature was not enough; archeology was necessary in order to appreciate and understand classical studies." The turning point in Angel's career was his decision to turn down his parents' offer of a European vacation and instead attend a series of courses led by Clyde Kluckhohn at the American School of Prehistoric Research in New Mexico. "Clyde Kluckhohn, a Rhodes scholar, was excessively dynamic, more or less a universal man who made a big impact on students. He presented the field of anthropology as a unified whole as I never before, or after, heard it. We started with geology and archeology of the Southwest, then on to climate, botany, ecology, and the

attitude of man toward his environment by contrasting the Navajo (pastoralists) with the Pueblo (maize growers). We had the unique opportunity of observing the Indians' ceremonies honoring nature."

### On to Greece

In 1936 Harvard professors Clyde Kluckhohn and Earnest Hooton strongly encouraged Angel to pursue his interest in anthropology. From Hooton, his physical anthropology teacher, Angel became interested in the jaw joint which differs among ethnic groups, between humans and other primates, and among fossil humans (i.e. Neanderthal and Homo sapiens sapiens). "Hooton wanted me to do fieldwork in Greece where very little had been done since the 1890's and where few samples had been retrieved because of the acid soil which eats away skeletal material. Having received permission from both Greece's Director of Antiquities and a Greek archeologist, I worked for over a year taking a complete sample of all the skeletal material that had been excavated from the Neolithic onward. The material was enough for my Ph.D. thesis. I was also concerned about the Nazi interpretations of race espousing the ancient Greeks as the ideal Nordic." Angel's research revealed that the Greeks varied considerably physically as a result of several waves of migrations into the area. "The Middle Bronze Age demonstrated the greatest heterogeneity. Just before 2000 B.C. the Indo-Europeans moved in and after the Late Bronze Age the heterogeneity narrowed." After several expeditions to Greece over the years, often accompanied by his wife who mended bones and recorded bone measurements, Angel published his findings in The People of Lerna (1971), a book he dedicated to his wife Peggy whom Angel describes as "a constant source of help, advice and love."

(continued on p.14)

## AAA MEETINGS

The 82nd Annual Meeting of the American Anthropological Association will be held at the Chicago Hyatt Regency Hotel, November 16-20, 1983. This year Committee 3 of the Council of Anthropology and Education (a committee dedicated to the encouragement of Pre-Collegiate Anthropology) will sponsor four events:

\*Friday, Nov. 17, 5:30-7:00 p.m.  
Business Meeting of Committee 3  
 (open to all interested persons)

\*Saturday, Nov. 18, 12-1:30 p.m.

A Workshop, "New Arenas for Anthropology in Pre-Collegiate Education," will explore possibilities for including anthropological expertise and knowledge in such precollegiate or extracollegiate arenas as museums, libraries, ethnic and international schools and camps, gifted programs, as well as in regular classrooms. The workshop will also consider whether focusing more attention on the precollegiate level (or extracollegiate) would benefit collegiate anthropology. Organizer/Chair: Ellen C.K. Johnson. Participants: Elena Bradunas, Edith M. Fleming, Jeanne M. Fulginiti, Ellen C.K. Johnson, Ruth O. Selig, and Joan S. Wider.

\*Saturday, Nov. 18, 7:00-8:00 p.m.

Council on Anthropology and Education no-host cash bar and Roundtable Discussion. Committee 3 table, "Beyond the College Classroom: Reaching New Audiences." Facilitators: Patricia J. Higgins, Ruth O. Selig, Ellen C.K. Johnson, and Joan Wider.

\*Sunday, Nov. 19, 9:30-11:30 a.m.

A Symposium on "Archeology & Education: A Successful Combination for Pre-Collegiate Students." Organizer: Karen Ann Holm. Papers by: Stuart Struever, John K. White, Louana M. Lackey, Barbara Byche, Karen Ann Holm, and Thomas Genn Cook. Discussant: Mark Cohen.

We hope Chicago area teachers will be able to attend these events as well as anthropologists interested in the wider dissemination of anthropology beyond the college classroom.

We hope also that Sunday's symposium will be published, perhaps as a third series of symposia organized by Committee 3 and produced by the Anthropology Curriculum Project. The previous two volumes listed below are available by writing: Department of Social Science Education, 107 Dudley Hall, The University of Georgia, Athens, Georgia 30602.

Teaching Anthropology to Students and Teachers: Reaching a Wider Audience, edited by Patricia J. Higgins and Ruth O. Selig. (Based on a symposium held at the AAA meetings in Washington, D.C., December 6, 1980.) The Anthropology Curriculum Project, The University of Georgia, 1982. (\$3.00)

Anthropology and Multicultural Education: Classroom Applications, edited by Yolanda T. Moses and Patricia J. Higgins. (Based on a symposium and workshop held at the AAA meetings in Los Angeles, December 5, 1981.) The Anthropology Curriculum Project, The University of Georgia, 1983. (\$5.00)

Patricia J. Higgins  
 Chair, C.A.E.. Committee  
 3, "The Teaching of  
 Anthropology"

Ruth O. Selig,  
 Program Chair, C.A.E.  
 Committee 3



## TEACHER'S CORNER: !KUNG IN THE 1980'S

The !Kung bushmen or San are among the best known people in the anthropological literature, familiar even to elementary and secondary school students through the writings of Elizabeth Marshall Thomas (*The Harmless People*) and the films of her brother John Marshall ("The Hunters," "Bitter Melons"). Yet this traditional way of life is rapidly disappearing.

In 1982 and 1983 I lived for an extended period at Dobe, a San waterhole on the Botswana/Namibia border in the northwest part of the Kalahari Desert. Since my first visit to Dobe in 1968 and 1969, I had made several extended trips to the area to carry out archeological and ethnographic field research. Over this period I was able to record some of the major changes taking place.

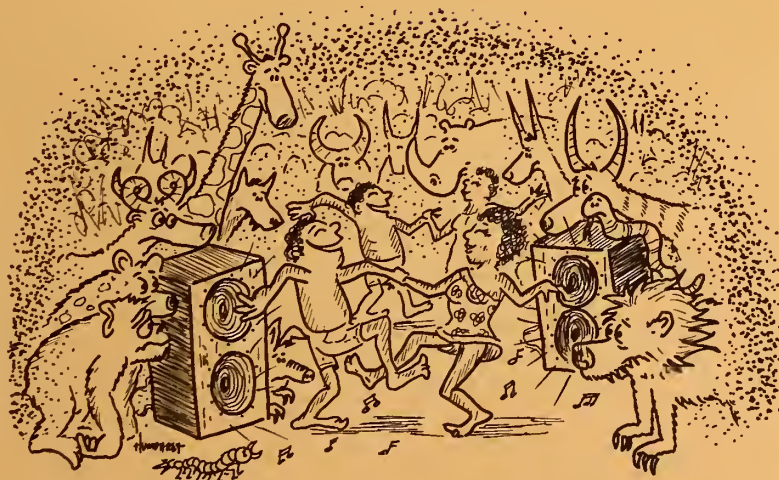
### Hunters and Gatherers

In the 1950's, when first contacted by anthropologists, the Dobe San were largely isolated from the outside world. In 1963 when Richard Lee began a long-term study at Dobe, they were living almost entirely by hunting and gathering wild foods. They did not own livestock, nor did they plant fields. Most of their simple material needs were supplied by the natural resources of their local environment. In the dry season, a large group of up to 50 people camped at the Dobe waterhole; while during the rainy

season, small groups and nuclear families moved out into the surrounding bush, harvesting nuts and other abundant vegetable and animal foods. Although this rainy season utilization area included a substantial chunk of what is now Namibia (formerly South West Africa), no fences or other barriers impeded San movement across this unnatural political boundary along the 21st parallel of longitude. Archeological evidence suggests that people living a similar way of life and possessing a similar material culture minus the iron elements inhabited this general area for over 20,000 years. In addition, the history of human hunting and gathering in this area goes back over 200,000 years.

### Forces of Change

During the last 15 years, three major factors have brought the San peoples into direct contact with 20th century material culture, a modern economy and modern political realities: 1) Botswana's independence and internal development plans, 2) intensive study by anthropologists, and 3) encroachment on and restriction of San territory due to political events in Namibia. While the Botswana government has tried to settle and educate nomadic people and to provide economic incentives through agricultural training and the development of a local crafts industry, anthropologists have attempted to establish San rights to



their traditional lands by helping dig wells, register land claims and provide capital for livestock purchases. At the same time, the border with Namibia has become increasingly 'closed' to San group movement, although individuals continue to visit on the other side for short periods and to marry across the boundary.

What are the results of these forces of change? In June, 1968, when I first visited Dobe, the residents lived in an intimate circle of small round grass huts which blended into the landscape so thoroughly that at 100 yards distance, only the cooking fires and the sound of women cracking mongongo nuts marked the camp's location. Almost all clothing was made from animal skins, decorated with ostrich egg shell beads and a few glass trade beads. When I looked in people's three-legged iron cooking pots and in the ashes of outside fires around which almost all in-camp activities occurred, I saw mongongo nuts, wild tsama melons, game meat and various wild root vegetables. At night, when the temperature dropped below freezing, people huddled in their thin skin clothing around the fires and coughed. Since many people were ill with coughs and flu, curing dances were held almost nightly. As I sat around the fire listening to the chanting and clapping, relishing the intimacy of the group and its remoteness from the materialism of my own world, I often thought, "Take away the metal cooking pots, arrow heads, awls, and knives, and this could be the Stone Age."

#### Herders and Farmers

After a further visit in 1969 and a long field season in 1975-76 and 1977, I returned to Dobe in August of 1980. The changes were striking. At the old waterhole, no one ran up in curiosity to greet our truck. Large numbers of cows stared at us from the thorn bushes while groups of goats scattered at our approach. Thorn and rail fences were everywhere, enclosing four separate "villages", their fields, a communal well and various outlying households.

At the village, where our main informants of the 1960's were still living, the intimate circle of small grass huts had been replaced by a completely cleared area the size of a football field. Along the north side of this area stood eight circular mud houses whose thatched roofs towered over ten feet high. Split-rail fences enclosed the house area and separated it from the circular cattle, goat and donkey enclosures to the south. When neighbors, friends and relations had constituted the principal insurance against hard times, people's doorways had faced inward towards other members of the group. Now each doorway looked outward to the animals which represented a new form of capital insurance and investment.

#### The Modern World Intrudes

Although there were no large fireplaces outside the houses, people in western clothes and army boots sat around in front of the houses and ate mongongo nuts. Nearby someone scraped a skin. It seemed almost like old times. Then meal time arrived and with it, the newly married daughters of our two informants, on a visit from the settlement at Tchum!kwe in Namibia (55 kilometers away). A three-legged pot, filled with a strange yellow porridge, appeared out of one of the huts. "What are you eating?" we asked. Again, out of the hut, someone dragged an enormous bag marked "Gift of the People of the United States of America." We were later to learn that the ration of relief food reaching Dobe each week consisted of thirteen 50-pound sacks of this corn-soy-milk mixture and several gallons of soy oil for about 100 inhabitants. No wonder even the dogs were fat!

One of the teenage girls ducked into a hut and staggered out with an amplifier that would have done justice to the Rolling Stones. I began to notice just how much stuff was hidden in these huts and how little was out in plain view of everyone. "Uncle," she said



"lend me your knife!" When her uncle produced the tool, she deftly unscrewed the back of her gramophone and a mass of wires tumbled out. Quickly she hooked up the correct wires to the correct terminals in the amplifier and soon we were assaulted by a peculiar brand of southern African rock music called gumba gumba which could have been heard back at Tchum!kwe. "Ah," I thought, "add a little more asphalt and this could be in downtown Washington."

By 1982 most families had saved up enough cash to buy bicycles on which their adolescent sons made frequent trips to Tchum!kwe for supplies. A young married woman whose childhood face illustrated the desert hunter-gatherer in many an anthropology textbook, gave me this year a can of Japanese peaches as a farewell present. A few San were serving in the South African army for the astonishing wage of ca. \$450 per month. The comparable legal minimum wage in most of the countries of southern Africa is between \$75 and \$110 per month. Like most soldiers, these individuals now hold substantial life insurance policies, which may ultimately result in unheard-of windfalls of cash.

#### Away from Equality

The most significant change in 1982, however, was that one man had emerged as a 'headman' who spoke for the community to the outside world, and who spent much of his day sitting on a special chair under a tree settling disputes among Dobe residents. Designated leadership goes against traditional values of the San which place a strong emphasis on personal equality, sharing and humility. Even in 1976 we could not persuade any member of the Dobe community to assume responsibility for handing out daily rations of food at lunch to workers at our archeological site. Indeed, the conflict between traditional values and the need for personal hoarding, resource conservation and dispute settlement mechanisms in a semi-settled community of subsistence farmers is perhaps the central difficulty for the San becoming independent farmer-herders.

A second major change was the increasing role of non-San individuals in the economy and social life at Dobe. To become the dependent servants of a Herero 'or Tswana cattle owner, when hunting and gathering is no longer viable, is to take a relatively painless road to development. San servants are often viewed as 'children' for whom the cattle owner adjudicates disputes, sets priorities, takes ultimate responsibility for fields and animals, and stores the surplus, so that traditional intimate camp styles and personal mobility patterns can be maintained if the San group desires. Inter-marriage between San and non-San is a frequent feature of the relationship, and the children of such a union are further assimilated into the cattle owner's culture. Soon, the San will probably be assimilated into the dominant cultures and nations of southern Africa. Eventually their distinctive languages and physical appearance will disappear, as has already happened over most of South Africa itself and much of Zimbabwe and eastern Botswana, where Bantu-language speakers have lighter skins, broader faces and more prominent cheekbones than their counterparts to the north, and where 'click' sounds form an integral part of some Bantu languages such as Zulu and Xhosa.

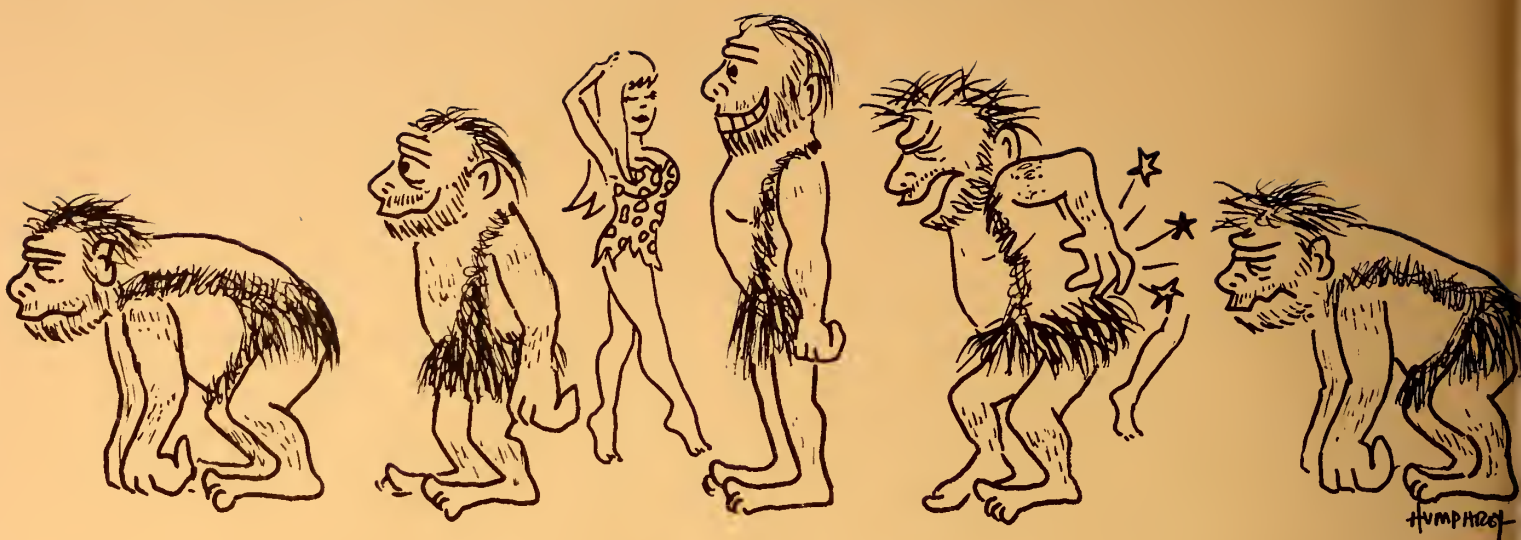
It is not hard to look down the road and see that within a generation, the traditional independent hunting and gathering way of life depicted in the films and books of the 1950's and 1960's will no longer be visible.

Alison S. Brooks  
(new A.N editor)

#### Recent references:

Lee, Richard B. The Dobe !Kung. (Case Studies in Cultural Anthropology.) Holt, Rinehart, and Winston, 1983.

"N!ai, the Story of a !Kung Woman", a film available from Documentary Educational Resources, 5 Bridge St., Watertown, MA 02172. "The San in Transition" guide included.



## LUCY, UP A TREE?

Paleoanthropologists no longer question that Lucy, a 3 1/2 foot hominid female with a chimp-sized brain, walked on two legs in Ethiopia about 3.5 million years ago. Neither do they argue that the anatomy of Lucy's species, Australopithecus afarensis, is fully modern; all agree it is a "mosaic of human-like and ape-like features." No one seriously disputes that bipedalism was more important to their lifestyle than for any non-human primate, living or dead. However, Lucy's discoverers, Donald C. Johanson and Tim White, claim that the bipedalism seen in A. afarensis differs insignificantly from that of modern humans. Other scientists disagree.

Recently two noted anatomists from the State University of New York at Stony Brook, Jack Stern and Randall L. Susman, called for new interpretations of Lucy and her contemporaries. After carefully examining some original A. afarensis bones, casts of others, and the set of 3.7 million year old footprints at Laetoli in Tanzania, Susman and Stern argue that A. afarensis moved bipedally, but with a bent-knee, bent-hip posture.

Also, they argue, at least some of the A. afarensis hominids, especially the smaller ones like Lucy, no doubt slept, hid, and fed in trees enough of the time so that we can recognize some arboreal features in their anatomy.

Susman and Stern presented their evidence and analysis in an extensive article in the Journal of Physical Anthropology (March 1983), and at an exciting and often boisterous conference in April. The conference, held at the Institute of Human Origins in Berkeley, was directed by Donald C. Johanson, founder of the Institute. There the different factions met to examine the bones and thrash out their many different views about two controversies: 1) When did bipedalism begin and to what extent was Lucy bipedal? 2) Did A. afarensis make the footprints at Laetoli or did members of the genus Homo?

### Why the Trees?

Why do Susman and Stern conclude that A. afarensis retained arboreal adaptations? The shoulder socket faces upwards 15 degrees more than in a human. This greater angle is



better for the overarm movement and branch hanging involved in climbing. In this respect A. afarensis is closer to a chimp's anatomy and almost identical to a gorilla's. An even stronger argument rests on the finding that A. afarensis' hands and feet both have long, slender curved bones and their arms and legs are relatively heavily muscled. Both conditions are found in apes and both are suitable for grasping and moving along tree branches and trunks. While Johanson et al. consider these as primitive patterns held over from an arboreal past, Susman and Stern argue that 1.5 to 2 million years is too long to retain morphological traits which are no longer consistent with daily behavior. "The possibility of lesser developed... ligaments [in the sacroiliac area] suggests a lesser frequency of terrestrial bipedalism" than in humans, they wrote. Looking at the knee area, they conclude that, "the hamstring moment arm [which acts to straighten the leg and is more efficient and powerful when short] is not as short as modern humans' and is not as long as monkeys' and apes'." Since leg straightening is crucial to walking but not climbing, this intermediate condition suggests A. afarensis was both a climber and walker.

Since the most compelling evidence for retained arboreality is in the shoulder, arm, fingers and toes, Susman and Stern are more cautious in arguing that A. afarensis walked on two legs in a significantly different way than a modern human does. Because the iliac blades face backwards more than sideways, the pelvic balance is closer to apes than humans, yet the rest of the pelvis is more typical of humans. A. afarensis probably straightened the knee and hip in walking less than modern humans do and also transferred less weight onto the ball of the big toe. But the anatomy of the hip and knee in no way suggests they ever were quadrupedal knucklewalkers.

Hence, Susman and Stern conclude that A. afarensis were probably both arboreal and bipedal, using the trees for sleeping, escape, and food.

### Females Up, Males Down

Susman and Stern tentatively propose that sexual dimorphism explains the differences in skeletal size within the A. afarensis sample and they link this dimorphism to different degrees of arboreal adaptations. If the different sizes are different sexes, the females were smaller in stature and lighter and the males were taller and heavier. The femurs in the larger specimens (supposedly male) are more like human femurs than the smaller specimens. The knees of the small hominid are not very human-like and are more compatible with arboreality. The larger specimens probably walked bipedally more frequently than did the smaller ones. Therefore, Susman and Stern suggest that all specimens of A. afarensis may not have had "identical locomotor profiles." Perhaps the females moved in and used the trees more than the males did, a pattern also seen with orangutans and gorillas.

Who made the Laetoli footprints? Susman and Stern examined the prints and even had two subadult male chimpanzees walk on two legs in wet sand to compare to the casts of the Laetoli footprints. Susman and Stern agree with Johanson and White that the A. afarensis footbones could have made the Laetoli footprints, but they see the prints as those of walkers still climbing as well. (The Leakeys deny this interpretation.)

It is unfortunate that Susman and Stern attach the label "missing link" to the A. afarensis specimens considering the emotions surrounding that phrase. It suggests only one link, a highly linear pattern to evolution, and perhaps subtly influences their research to see these specimens as transitional. Johanson and White, on the other hand, emphasize the hominid qualities of the finds and would expect to find more

(continued)

transitional specimens further back in the past.

### No Resolution

Why can't a consensus emerge? Consider these variations. Paleoanthropologists interpret biomechanics differently. While Susman and Stern use a variety of electrical methods, such as electromyography, to study muscle and movement in living apes, other scientists question whether living ape's biomechanics are similar to those of apes in the past. Paleoanthropologists must struggle to overcome problems with different measurement techniques, the effects of post-mortem distortion, and the differences between working with casts and with the original bones. Finally, they have to assess what is the expected range of morphological and behavioral locomotor variation in humans.

Moreover, paleoanthropologists interpret anatomical functions differently. For example, Owen Lovejoy, the scientist arguing for bipedalism in the A. afarensis specimens, does not accept that curved toes and fingers necessarily indicate grasping -- and therefore arboreality. He says the A. afarensis hand is smaller than an ape's, and the fingers are shorter and straighter. "If you were still climbing, why would you shrink your hand?" Lovejoy asks. Furthermore, the big toe is not divergent, as in the apes, which would certainly handicap climbing. In line with this position, Johanson and Edey argue that the long curved toes were needed to "move over rough stony ground or in mud, where some slight gripping ability would have been useful."

One certainty that all agree on is the necessity to find more bones in order to sort out the evidence and arguments, particularly bones from 4-5 million years. If only Lucy could talk, as well as walk.

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- Lewin, Roger. "Were Lucy's Feet Made for Walking?" Science 220 (May 13, 1983):700-702.
- Stern, Jact T. and Randall L. Susman. "The Locomotor Anatomy of Australopithecus afarensis," American Journal of Physical Anthropology 60 (March 1983):279-317.

JoAnne Lanouette

### NOW AVAILABLE

How Humans Adapt: A Biocultural Odyssey, edited by Donald J. Ortner, is a collection of 20 essays by well-known scholars such as Rene Dubos, James Neel, L.L. Cavalli-Sforza, Jane Lancaster, and Kenneth Boulding who participated in the Smithsonian's Seventh International Symposium, November 8-12, 1981, organized by Ortner. Available from the S.I. Press, P.O. Box 1579, Washington, D.C. 20013 for \$9.95 paperback. (This book will be reviewed in the winter issue of Anthro.Notes.)



## AAA: WHITHER NOW?

American anthropologists, who often scrutinize other groups' social institutions, can hardly be unconcerned with the fate of their own defining institution, the American Anthropological Association (AAA). It is facing a radical reorganization brought about by outside forces but having implications for all anthropologists. The change concerns AAA's role as an umbrella institution providing support services for independent sub-discipline organizations such as the Society for American Archaeology, the American Association of Physical Anthropologists, and the Society for Applied Anthropology. In many cases, professionals become members of these smaller societies without ever becoming members of the AAA.

### The Birth of AAA

The history of anthropology reflects the tension between the holistic focus of the discipline and the divergent interests of its various subfields. In the 19th century the handful of Americans who considered themselves anthropologists usually defined their role in narrower ways than we do now. They were museum curators, or explorers, or comparative anatomists, or linguists, and their primary allegiance as professionals was to their employers. Since the most important employer of anthropologists in 19th century United States was the Smithsonian, it is not surprising that it was in Washington, where there were several dozen men and women doing professional anthropological work by 1890, that the first steps toward a larger institutional framework were taken. The Anthropological Society of Washington (ASW), founded in 1879, quickly took on many of the trappings of a full-fledged national professional association. Beginning in 1889 the Society began publishing a scholarly journal, entitled the American Anthropologist, and many anthropological scholars living elsewhere in the United States and abroad became members of ASW.

By the turn of the century, with the rapid development of anthropology in



universities, Washington began to share its automatic preeminence with other anthropological centers. After considerable negotiation between the ASW and several other local societies, it was decided to set up a national editorial board for the journal. Then, in 1902, the American Anthropological Association came into being, as a truly national professional organization for anthropologists.

### Old Boys and Young Turks

The AAA had two distinct historical phases, with the division line falling in 1947. During its first four decades the Association's membership was relatively small and full participation in its affairs was limited to an elected "Council" of 30 to 40 "fellows". The yearly meetings were cozy get-togethers with most of the papers, whatever their subject, heard and discussed by the full group. This "intimate" association (which reflected the general smallness of the field right through the 1930's) was radically disrupted by the Second World War and, in the

immediate postwar years, by the huge and rapid growth of the social sciences in the curriculum of American universities.

At the 1947 meeting, a group of younger scholars, frustrated by what seemed to them an increasingly irrelevant AAA dominated by an "old boy network" (the "boy" in this case included Margaret Mead, Ruth Benedict, Elsie Clews Parsons), led a revolt and forced the Association to adopt a new, much more liberal constitution. The new organization, unlike the pre-war AAA, actively encouraged student membership. The real business of the Association was no longer conducted in the inner sanctum of the elected Council, but by the membership at large (at the annual meeting and by mail ballot) and by an Executive Board elected by the whole membership. Concurrent with this structural shift came an enormous growth in specialization. The intimacy of the old meetings was replaced by the jumble of concurrent sessions devoted to relatively narrow topics, with here and there a half-hearted attempt at "synthesis", that still characterizes the AAA meetings we know today.

### Winds of Change

Now after nearly 40 years, once again the winds of change are howling through professional anthropology. With the growth of the field and its burgeoning literature throughout the 1960's and 1970's came increasing specialization. Archeologists, physical anthropologists and even such smaller groups as medical anthropologists and applied anthropologists conduct much of their professional business within institutional structures that are, in varying degrees, independent of the AAA. The annual meeting, American Anthropologist, and other facets of the larger organization are often seen as primarily sources of practical information about new books, job opportunities, research funding, and the state of the profession while the AAA's role in the dissemination of new ideas is diminishing. Like it or not, professional anthropology in this country must face up to the social change it has undergone and once again the institutional definition must be altered.

The question is how. Unlike the situation in 1947, there are no "young turks" in 1983 with a clear alternative organization in mind. This time, change is being forced upon the AAA from outside -- from the improbable direction of the IRS. The IRS last year ruled that the services the AAA performs on behalf of the various sub-discipline organizations (billing for dues, printing and distributing journals, etc.) is, in fact, a "profit-making business enterprise, since these other organizations are in no significant structural way a part of the AAA itself." If the AAA is to avoid paying taxes on this income and, even more crucially, maintain its tax-exempt status, one of two things must be done to satisfy the IRS: either the AAA must cease to perform these services, and divorce itself entirely from the business of the subdisciplinary organizations, or the subdisciplinary organizations must formally and structurally become a part of the larger AAA organization.

### A Call to Action

For anthropology as a unified subject of study and teaching, the IRS challenge provided a call to action. The AAA Executive Board decided to gamble on anthropology's intellectual unity, and last fall proposed a sweeping reorganization of the discipline, to go into effect in 1984, if agreed on by all parties. Under this plan, all of the subdisciplinary organizations now in existence (except for the Linguistic Society of America, which was deemed too intellectually independent of anthropology) would disincorporate, and their members would transfer to the AAA, where they would automatically become members of the appropriate subdisciplinary "unit". Independent journals would continue to be published, and independent annual meetings held. But henceforth all budgetary decisions and other business would be handled by a Board of Directors whose membership would represent, proportionately, the membership strengths



of the various subdisciplinary units.

Will this plan work? Much depends on the willingness of the members and officers of such organizations as the Society for American Archaeology, the American Association of Physical Anthropologists, and the American Ethnological Society, and others, to allow their organizations to lose their individual identities on behalf of the (presumably) greater good of a unified anthropology. If the proposal is rejected and no satisfactory alternative is created, it is likely that the AAA, if it survives at all, will play a very different role in the future from what it has in the past. It will be, in some sense, in competition with archeology, physical anthropology, and other subdisciplines, rather than being the "parent" organization. Negotiations are presently under way, and we may not know for several months what the final outcome will be. But one thing is for certain: the institutional definition of anthropology is once again in the process of change and the outcome will probably affect the discipline for years to come.

Victor Golla  
Assoc. Prof. of Anthropology  
George Washington University  
(July, 1983)

#### Editor's Note:

As Anthro·Notes was going to press, we asked Ed Lehman, the chief executive officer of the AAA for any last minute word on the reorganization. He told us that as of the end of September, while all the member societies have endorsed the AAA's reorganization plan, five organizations had voted not to merge with the AAA but to remain independent and to take over the administration of their own affairs. The five organizations were: the Society for American Archaeology, the Society for Historical Archaeology, the American Association of Physical Anthropologists, the Society for Applied Anthropology and the Southwestern Anthropological Association. Results from the nine other organizations were pending.

In Lehman's view, the results simply reflect what has been going on in the field for several years. Not only have archeologists and physical anthropologists, for example, become more intellectually separate from general anthropology, but they have often complained of being treated like second class citizens by socio-cultural anthropologists who are in the majority in most academic departments. "The relationship is a little like that between the underdeveloped countries and the developed industrial world," Lehman said. Archeology could perhaps be compared to an underdeveloped country that discovered oil ten years ago in the form of historic preservation money, and whose oil fields are now threatening to give out.

Lehman sees the reorganization as a challenge to determine whether there is a holistic field called anthropology; to define the field, if it exists, in new ways; and to develop a new, stronger general organization (AAA) which stands on its own rather than being a supporting organization for various specialties. Perhaps a federation will be the answer, but that would require a totally new organization and considerably more time and money to work out. It is unfortunate that the present reorganization comes at a time of financial retrenchment for academic institutions in general and for anthropology in particular. If holistic anthropology is on its way out at the higher education level what is its fate at the secondary school level? Anthro·Notes editors hope to consider this question and other issues in the months ahead.

(continued from p.3)

### Joining the Smithsonian

In an effort to do something useful for the war effort, and at the same time avoid the draft and a probable desk job, Angel became an Associate Professor of Anatomy and Physical Anthropology at The Jefferson Medical College in Philadelphia. When questioned what brought him to the Smithsonian, Angel replied, "By 1960 I was getting bored having taught anatomy for 19 years. In 1961 Dr. T. Dale Stewart, then Department head, offered me a position as Curator of Physical Anthropology which I readily accepted. Carmichael was then Secretary and he was interested in international education and neurology. There was an atmosphere of creativity at the Smithsonian which Dillon Ripley has continued."

Angel continued his research on ancient Greeks and at the same time began to explore opportunities for studying other populations. He has compared the nutrition of the Colonial Williamsburg population with their English ancestors' (selection favored higher skulls in the Americans) and American Blacks with Africans. Just as his research shows a significant improvement in health in modern U.S. populations over the last 100 years (a relatively short period of time), the health of the Classic Greeks was much better than their ancestors, though it was a much slower process. At present, Angel is working on a book Health & the Growth of Civilization, an expression of his career-long interests in demography, health and disease studies, and the processes of human evolution at the population level. "I've done pretty much what I've wanted to do. However, it would be nice to do a very detailed and extensive twin study to separate genetic and environmental factors which influence disease and different aspects of nutrition such as stature. Maturation and growth is faster today and my concern is how it affects stature and body proportions. Modern teenagers' rate of psychological maturity falls

behind their physical rate, getting them involved in adult behavior before they are psychologically ready to accept its consequences."

When asked what people think of Dr. Angel's work, Peggy Angel replied, "People think physical anthropologists are strange. There is a certain fear of their work since it is connected with death. Actually my husband doesn't like to kill anything. We have a stable of crickets in our cellar and if one of them should find its way upstairs, he returns it to the cellar."

A Latin verse hangs in Dr. Angel's office -- "Hic Locus Est Ubi Mortui Viventes Docent" (This is the place where the dead teach the living.) We might add that this is the place where Dr. Angel teaches the living about the dead.

Ann Kaupp

### Science 83 articles of interest:

"Tales of an Elusive Ancestor" by Allen L. Hammond, (November):36-43. Is Ramapithecus a human ancestor?

"Heat Loss" by Sarah Blaffer Hrdy, (October):72-86. Why don't human females go into heat?

"The Perpetrator at Piltdown" by John Winslow and Alfred Meyer, (September):32-43. Is Sir Arthur Conan Doyle suspect?

\* \* \* \* \*

A Teacher's Resource Packet on Creationism, which includes 17 articles and a bibliography by Laurie R. Godfrey and John R. Cole, is available from Ann Kaupp, Department of Anthropology, Stop 112, Smithsonian Institution, Washington, D.C. 20560.



## UPCOMING EVENTS

Oct. 1-Jan. 8, 1984: "Art of Aztec Mexico: Treasures of Tenochtitlan." Natural Gallery of Art exhibit organized with Dumbarton Oaks. Many of the objects on view were recently excavated at the site of Temple Mayor or Great Temple, of Tenochtitlan, in the heart of Mexico City. Most comprehensive collection of Aztec art ever shown in the U.S.

Nov. 1-Jan. 31, 1984: "Ban Chiang; Discovery of a Lost Bronze Age" (Thailand). Exhibit held in Evans Gallery, Museum of Natural History.

Nov. 4: "The Mindful Way" and "Bangkok: A Special Time and Place." Two free films presented in conjunction with the "Ban Chiang" exhibit. Baird Auditorium, Museum of Natural History, 12 noon.

Nov. 9-Jan. 1, 1984: "The Precious Legacy; Judaic Treasures from the Czechoslovak State Collections." Exhibit held in Evans Gallery, Museum of Natural History.

Nov. 15: Anthropology Society of Washington (ASW) meeting. Speaker Stephen A. Tyler (Rice University). The 1983-84 program theme is "Meaning in Social Life". Naturalist Center, Museum of Natural History, 8:15 p.m.

Nov. 25: "Pragues' 1000 years of Judaism" and "The Remnant". Two free films presented in conjunction with "The Precious Legacy" exhibit. Baird Auditorium, Museum of Natural History, 12 noon.

Dec. 10: "The Aztecs". All-day Smithsonian seminar. Speaker D. Esther Pasztory (Columbia University). For ticket information call Smithsonian Resident Associates Program Office at 357-3030.

Dec. 13: ASW meeting. Speaker Sharon Stephens (University of Chicago). Naturalist Center, Museum of Natural History, 8:15 p.m.



## NEW EXHIBIT

"In Keeping with Nature" a new North American Indian art exhibit opened July 18th at Hillwood, the former estate of Majorie Merriweather Post. On extended loan from the Smithsonian Institution, recipient of Mrs. Post's generosity, are approximately 190 American Indian artifacts she collected in the 1920's, with emphasis on the material culture of the Plains and Southwest. The exhibit is on view in a building in the style of Topridge, Mrs. Post's Adirondack retreat, where these artifacts were originally housed.

Hillwood, located at 4155 Linnean Ave., N.W., Washington, D.C., is open daily from 11:00 a.m. to 4:00 p.m. except Tuesday and Sunday. To view the Indian collection, it is necessary to call in advance (202)686-5807. Admission is \$2.00.

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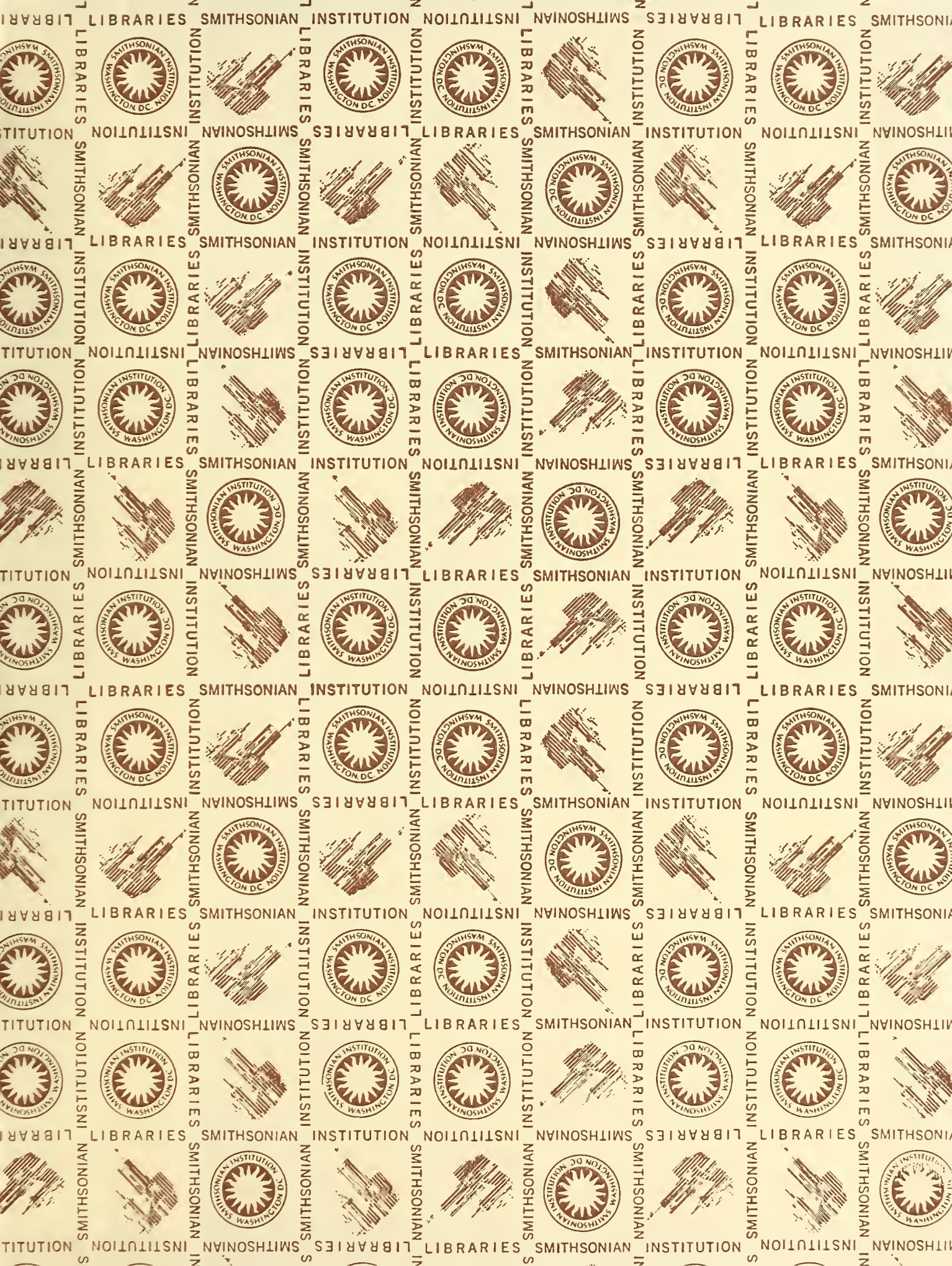






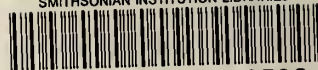








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